BY ORDER OF THE COMMANDER
SPANGDAHLEM AIR BASE

AIR FORCE INSTRUCTION 21-101
SPANGDAHLEM AIR BASE
Supplement

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Maintenance

AIRCRAFT AND EQUIPMENT
MAINTENANCE MANAGEMENT

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Air Force Instruction (AFI) 21-101, Combat Air Force (CAF) Supplement, is supplemented as follows. This supplement applies to all assigned, attached and staff agencies of the 52d Fighter Wing (52 FW) and all associated and tenant units serviced by the 52d Maintenance Group (52 MXG). This supplement prescribes policies and procedures governing aerospace equipment maintenance management in the 52 FW. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with (IAW) Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at **https://www.my.af.mil/afrims/afrims/afrims/rims.cfm**. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF 847, *Recommendation for Change of Publication*; route AF 847s from the field through the appropriate functional's chain of command.

SUMMARY OF CHANGES

This supplement has been revised in its entirety to reduce areas already covered by other instructions. Shop specific requirements were also minimized throughout the document. The forms paragraph has been moved to Attachment 1 IAW publishing regulations.

2.8.1. **(Added)** Double hearing protection is defined as "a combination of ear plugs and ear muffs." Single hearing protection will be worn when within 50 feet of an operating MJ-1/MHU-83 lift truck. Double hearing protection will be worn when within 50 feet of an A/M 32A-60A, A/M 32A-86, A-10 running aircraft engines, or 200 feet from all other aircraft running engines to include F-16s.

4.4.2. Include repeats/recurs.

4.4.2.1. **(Added)** Notifies 52 MXG/CC of any second or subsequent repeat/recur discrepancies.

4.10.1.30. **(Added)** Control access to the cartridge cabinet/locker. A key sign-out log or automated tracking system will be used to document access. Control access to cartridge control cabinet with a key sign out log or automated tracking system to document access.

4.10.1.31. **(Added)** Deliver AME/NIE scheduled for in-shop off-equipment inspections to Armament Flight on the last duty day the week prior to its scheduled inspection. Equipment turned into Armament Flight will be clean, basic post-flight inspection completed, dust caps installed, and have all appropriate hardware. NOTE: LAU-118s will be declassed and annotated on AFTO 350 tags. Gun systems are due to Armament Flight on the first duty day of the week that they are scheduled. The 3-day and 5-day turnaround goal for F-16 and A-10 gun systems respectively starts when the entire system is accepted by Armament Flight.

4.10.1.32. **(Added)** Alternate Mission Equipment/Normally Installed Equipment (AME/NIE) involved in possible hung bomb or inadvertent release must be turned into Armament Flight. Do not perform Basic Post Flight. Accessories cables in use during suspected malfunctions will accompany items for checkout.

4.10.1.33. **(Added)** Deployment of AME/NIE.

4.10.1.33.1. **(Added)** Aircraft Maintenance Unit (AMU) Weapons Sections will provide Armament Flight the National Stock Number, Nomenclature, and quantity of each AME/NIE prior to departure for Temporary Duty (TDY), Deployment or Programmed Depot Maintenance input. When possible, after arrival, provide a list of AME/NIE serial numbers to Armament Flight for tracking purposes.

4.10.1.33.2. **(Added)** Weapons Section will appoint a deployed AME/NIE custodian. The appointed custodian will follow AFMAN 23-110, *USAF Supply Manual,* deployed custodian responsibilities/procedures.

4.10.1.33.3. **(Added)** Deployed custodian will notify Armament Flight when AME/NIE is moved from one TDY/deployed location to another or returned to home station.

4.10.1.33.4. **(Added)** AMUs will coordinate with Armament Flight for AME/NIE shipping preparation for TDYs and deployments a minimum of two weeks prior to the equipment processing date.

4.10.2.4. **(Added)** Inventory impulse cartridges at the beginning and end of each shift. Validate quantities at the end of each flying day.

4.10.2.4.1. **(Added)** Weapons Expediter will transport impulse cartridges IAW AFMAN 91-201, *Explosives Safety Standards,* and its United States Air Forces in Europe supplement.

4.10.5.4.2. The AMU weapons expeditor will input all rounds into IMDS daily.

4.10.6. **(Added)** Responsibilities for impulse cartridge installation.

4.10.6.1. **(Added)** Stations carrying Electronic Countermeasures (ECM) pods, Targeting Pods, Travel Pods, and Dual Rail Adapters (DRA) will not be carted.

4.10.6.2. **(Added)** Install impulse cartridges in stations carrying Training Guided Missile-65 and Captive Air Training Missile-88 missiles.

4.10.6.3. **(Added-F)** Do not install impulse cartridges in the Munitions Adapter Unit (MAU)-12 breeches when: Suspended Utility Unit (SUU)-20 dispenser is installed (loaded or empty), Launcher Armament Unit (LAU)-118 launchers are installed (empty), Bomb Rack Unit (BRU)-57 Smart Bomb Rack installed (empty) and TER-9A installed (empty) or with Bomb Dummy Unit (BDU)-33 practice bombs, Mark-106 practice bombs, or travel pods.

4.10.7. **(Added)** 2W1X1 responsibilities at deployed locations.

4.10.7.1. **(Added)** Deployed units will establish a munitions account and storage procedures IAW AFI 91-201, *Explosives Safety Standards*.

4.10.8. **(Added)** Transient Aircraft Procedures.

4.10.8.1. **(Added)** Impulse cartridges removed from transient aircraft other than F-16s will be stored in the 81 AMU cart locker and segregated from other impulse cartridges.

5.2.8.1. **(Added)** 52 Equipment Maintenance Squadron (52 EMS) and 52d Component Maintenance Squadron (52 CMS), as applicable, will send completed Can Not Duplicate (CND) and "Bad Actor" reports directly to the applicable AMU Production Superintendent.

5.6.8. **(Added)** Aerospace Ground Equipment (AGE) will maintain the trailer and running gear portion of the carts. Cart status is tracked and maintained by the 52 CMS, Electrical/Environmental Section (MXMCA). For safety reasons AGE will also perform wheel bearing repack on the Liquid Oxygen (LOX) cart purge units.

5.6.9. **(Added)** AMUs are responsible for movement, certification and marshalling of load stores/tank dollies when tanks are loaded for deployment.

5.6.10. **(Added)** Bomblifts will be signed out on a locally devised hand receipt issued by the AGE Flight for a maximum of 7 days. Bomblifts will be signed out on an extended basis to the Munitions Flight only. They must verify serviceability by field number as requested by the System Program Director. Individuals signing out bomblifts must be qualified on Maintenance Information System course code 017257 and have a valid competency card.

5.6.11. **(Added)** Any servicing, draining, emptying, or sampling of oil from oil, hydraulic carts and fuel bowsers will be accomplished by the applicable AMU or user. Exceptions to this rule will be coordinated through the 52 EMS Production Superintendent.

5.6.12. **(Added)** User is responsible for preparing all AGE for movement, i.e., roll up hoses, cables, secure all access panels and positioning AGE at least 25 feet from the aircraft for movement.

5.6.12.1. **(Added)** User is responsible for cleanup of areas where AGE equipment is used.

5.6.13. **(Added)** Towing Procedures. To further define the Air Force-wide variance #98-04 to Air Force Occupational Safety and Health Standard (AFOSHSTD) 91-100, *Aircraft Flight Line - Ground Operations and Activities*, the following rules apply when towing small AGE units.

5.6.13.1. **(Added)** When towing small AGE units with two axles, e.g. FL-1D Light Carts, MC-1A Air Compressors, etc., a maximum of four units will be towed at a time. Loads will be kept symmetrical and will not exceed the rated capacity of the pintle, equipment, or vehicle.

5.6.13.2. **(Added)** When towing small AGE units with a single axle, e.g. New Generation Heater, MC-2A Air Compressors, etc., a maximum of six units will be towed at a time. Loads will be kept symmetrical and will not exceed the rated capacity of the pintle, equipment, or vehicle.

5.7.4.14. **(Added)** Only one 20mm and 30mm gun system inspection should be scheduled per week. Scheduling will be worked out between the AMUs through the weekly shared resources meeting.

5.7.4.14.1. **(Added)** 24-month 30mm gun system inspections should not be performed earlier than 60 days prior to the due date and the 25,000 round interval inspections should not be performed unless the system is within 1,000 rounds of being due.

5.7.4.14.2. **(Added)** 18-month 20mm gun system inspections should not be performed earlier than 60 days prior to the due date.

5.7.5.1.1. **(Added)** Conduct a 100 percent inventory of (AME) and (NIE) annually in collaboration with Armament Flight.

5.12.5.5.1. **(Added)** If hush house fire suppression system is inoperative, the fire department will be notified prior to all aircraft or engine starts.

5.12.5.8. **(Added)** Hush house operators will be trained and qualified on hush house and hangar door operations prior to operating an aircraft in the hush house.

5.12.5.9. **(Added)** All hush house users will ensure occupation periods are kept to a minimum. Maintenance will not be performed in hush houses unless approved by Test Cell supervision.

5.12.5.10. **(Added)** Maintenance Operations Center (MOC) will:

5.12.5.10.1. **(Added)** Act as the focal point for all aircraft hush-house run requirements and will coordinate priority as necessary.

5.12.5.10.2. **(Added)** Coordinate with the 52 CMS Production Superintendent a minimum of 1 hour (when possible) in advance of projected aircraft requirements for the hush houses.

5.12.5.10.3. **(Added)** Prior to authorizing aircraft runs, verify that the hush house control room operator is qualified in Integrated Maintenance Data System (IMDS) and maintenance personnel operating aircraft are qualified in IMDS to run aircraft.

5.12.5.11. **(Added)** AMU will:

5.12.5.11.1. **(Added)** AMU Production Superintendent will coordinate with the MOC and 52 CMS Production Superintendent a minimum of 1 hour in advance of projected aircraft requirements. Ensure aircraft is prepared for hush house operation in accordance with this instruction and 52 MXG Local Check List 32 (LCL-52MXG-32), *Aircraft Preparation and Engine Run Operation in the Hush House.*

6.2.1.8.1. **(Added)** The MOC will verify the Geographical Location (GEOLOC) is loaded using the GEOLOC reference table in the IMDS Graphical User Interface (GUI). If the GEOLOC is not loaded, MOC will forward the required GEOLOC and location name to 52d Maintenance Operations Squadron (52 MOS) Analysis section. The IMDS Database Management (DBM) will notify MOC when the GEOLOC is loaded in Reliability and Maintainability Information System and pushed to IMDS.

6.2.2.10.1. Checklist Review Process.

6.2.2.10.1.1. **(Added)** All unit tailored checklists will be reviewed bi-annually and coordinated in the following order:

6.2.2.10.1.1.1. **(Added)** Unit maintenance officer/supervision.

6.2.2.10.1.1.2. **(Added)** 52 MXG Quality Assurance (QA), 52d Aircraft Maintenance Squadron (52 AMXS), 52 EMS and 52 CMS.

6.2.2.10.1.1.3. **(Added)** Unit commander.

6.2.2.28.15. **(Added)** Noise Abatement.

6.2.2.28.15.1. **(Added)** The Status of Forces Agreement governs 52 FW assigned aircraft for noise abatement. 52 FW assigned aircraft quiet hours are anytime outside the published airfield operating hours Mon-Fri 0600-2200 (or last landing time during approved night flying exceptions), Sat 0800-2200, Sun/German Holidays 1200-2000. The Air Traffic Act Permit (ATAP) applicable units (i.e. 726th Air Mobility Squadron (726 AMS)) quiet hours are from 1900 until 0700 hours local time Monday through Friday, all day weekends and German holidays. Exceptions to this policy require the approval of the 52 MXG/CC/Deputy Commander (CD).

6.2.2.28.15.2. **(Added)** The 52 MXG/CC/CD is the designated 52 FW authority for approving and tracking all Non-Standard Engine Runs on Spangdahlem Air Base (AB). Mission essential (imperatively required) is defined as any aircraft scheduled on the next fly day for mission training in preparation for units wartime tasking and/or participation of wartime/crisis tasking or mission. MOC will report installed and uninstalled 52 FW applicable engine runs between 2200 and 0600 hours on a monthly basis to 52 MXG/CC. Additionally, MOC will report installed and uninstalled engine runs for ATAP applicable between 2300 and 0700 with aircraft type, time, duration, power setting, location and reason stating the mission essentiality. A Non- Standard Engine Run is defined as:

6.2.2.28.15.2.1. **(Added)** Any outdoor maintenance engine run past applicable quiet hours stated in 6.2.28.15.2.

6.2.2.28.15.2.2. **(Added)** Any outdoor maintenance engine runs occurring on the weekend or German Holiday.

6.2.2.28.15.2.3. **(Added)** Any T9 or Hush House runs after quiet hours.

6.2.2.28.15.3. **(Added)** 52 FW Assigned Installed/Uninstalled Aircraft Engine Run Rules:

6.2.2.28.15.3.1. **(Added)** Idle and above idle engine test runs are authorized during published airfield operating hours:

6.2.2.28.15.3.1.1. **(Added)** A-10 aircraft: During published airfield operating hours, maximum single engine operation revolutions per minute (RPM) outside the Hardened Aircraft Shelter (HAS) is 99.4 percent while the aircraft is restrained. Unrestrained single engine operation inside or outside the HAS is limited to 85 percent. The HAS doors must remain open during engine test runs.

6.2.2.28.15.3.1.2. **(Added)** F-16 aircraft: During published airfield operating hours, maximum engine RPM inside or outside the HAS is 85 percent. The maintenance group has a waiver letter on file allowing RPM to exceed the 80 percent limitation on F-16 operation inside of HAS. The PAS doors must remain open during engine test runs.

6.2.2.28.15.3.1.3. **(Added)** Hush House/T9 Engine Runs: All aircraft and uninstalled engines can be run inside a Hush House at any time during published airfield operating hours. Hush House 2 is the only hush house that can be used for A-10 aircraft, while Hush House 1, 2 and 3 can be used for F-16 aircraft. Due to the proximity of Hush House 2 and the T-9 hush house to local community, use of Hush House 2 and the T9 engine test facility during weekends starting Friday 2200 hours through Monday and German holidays is authorized during airfield operating hours with exceptions limited to mission essential engine maintenance as determined by definition in Para 6.2.2.28.15.2 and the 52 MXG/CC/CD.

6.2.2.28.15.4. **(Added)** Idle engine runs during quiet hours will be run inside the hush house or HASs listed below with the approval of 52 MXG CC/CD:

6.2.2.28.15.4.1. **(Added)** A-10 aircraft idle engine runs during quiet hours are authorized in HASs 3001, 3003, 3005, 3008, 3011, 3016, 3020 and 3022 when the run meets mission essential definition and is approved by the 52 MXG CC/CD.

6.2.2.28.15.4.2. **(Added)** F-16 aircraft idle engine runs during quiet hours are authorized in HASs 3026, 3027, 3028, 3041, 3044, 3045, 3046, 3047, 3049, 3051, 3053, 3054, 3055, 3057, 3058, 3060, 3061, 3062, 3063, 3065, 3068, 3069, 3070, 3072, 3081, 3082, 3084 when the run is deemed mission essential and approved by 52 MXG/CC/CD.

6.2.2.28.15.5. **(Added)** Above idle engine runs during quiet hours will be run inside the hush house when the run is deemed mission essential and approved by 52 MXG/CC/CD.

6.2.3.21. **(Added)** AMU Responsibilities.

6.2.3.21.1. **(Added)** Appoint a primary and alternate engine status and tracking monitor for home station and deployments.

6.2.3.21.2. **(Added)** The engine status and tracking monitor (2A671) should be a highly qualified 7-level technician possessing engine operation experience and knowledge in troubleshooting and repair procedures.

6.2.3.21.3. **(Added)** Notify engine management (EM) within one duty day of all engine parts received from supply. The AFTO 95, *Significant Historical Data Record* and/or Department of Defense (DD) Form 1574, *Serviceable Tag Material* must be delivered to EM to load parts into IMDS. An email to the EM box with appropriate information may be used to expedite loading procedures. **Note:** Only EM personnel are authorized to load engine parts into IMDS.

6.2.3.21.4. **(Added)** Ensure all aircraft that flew (F-16 and A-10) or engines that were run are downloaded and transferred to EM within three hours of last aircraft landing time. Transfer downloads to EM for processing via Local Area Network (LAN) for home station or email for deployed units. Ensure .cop files are submitted daily with downloads.

6.2.3.21.5. **(Added)** Provide the following information to EM, Spangdahlem Form 3, *F110-GE-129 First Stage Fan FOD Survey*, Spangdahlem Form 4, *TF34-GE-100A First Stage Fan FOD Survey*; AFTO Form 350, and a copy of the IMDS maintenance snapshot (screen 122) for any engine being sent to the Propulsion Flight. Engines will not be accepted without required documentation.

6.2.3.21.6. **(Added)** Input into IMDS and notify EM when any serially tracked engine component is changed.

6.2.3.22. **(Added)** Propulsion Flight Responsibilities.

6.2.3.22.1. **(Added)** Complete serial number verification and receiving bore scope worksheets when engine is inducted into maintenance and deliver to EM prior to receiving an engine work package cover sheet. Complete serial number verification worksheet again prior to engine becoming serviceable.

6.2.3.22.2. **(Added)** Ensure all intermediate actions and/or status changes are entered into IMDS daily and EM is notified to update Comprehensive Engine Management System (CEMS).

6.2.3.22.3. **(Added)** Ensure all documentation (AFTO Form 95, serviceable tags or equivalent) applicable to new components are delivered to EM.

6.2.3.22.4. **(Added)** Complete all removal and installation actions in IMDS for serially controlled engine components during in-shop maintenance and notify EM of any status changes.

6.2.3.23. **(Added)** Test Cell/Noise Suppression Section will:

6.2.3.23.1. **(Added)** Transfer F110 engine download information and provide to EM for CEMS input after each engine test run.

6.2.3.23.2. **(Added)** Ensure all test cell engine run paperwork is included with the engine work package.

6.2.3.23.3. **(Added)** Complete all removal and installation actions in IMDS for serially tracked components changed during engine testing and notify EM.

6.2.3.24. **(Added)** Deployed engine monitors will:

6.2.3.24.1. **(Added)** Receive training from EM no later than 3 duty days prior to departure.

6.2.3.24.2. **(Added)** Receive deployed engine monitor package from EM consisting of: Oil Analysis Program (OAP) records, 6-month time change forecast, cannibalization paperwork, phone & fax number, e-mail addresses, and examples of required engine shipping documents.

6.2.3.24.3. **(Added)** Comprehensive Engine Trending and Diagnostics System (CETADS) users will ensure their laptop is loaded with current software, capable of communicating with the CETADS host, and are reconciled prior to deploying. Laptop must have a completed AF Form 3215OP_AETC, *C4 Systems Requirements Document*, to allow for connectivity at deployed location, if LAN capability is available. If LAN capability is not available, all performance data and engine reconciliation will be transferred to EM.

6.2.3.24.4. **(Added)** Direct any questions concerning CETADS to EM.

6.2.3.24.5. **(Added)** Ensure engine data is sent to EM personnel as soon as possible (ASAP), but NLT 0800L the day after the aircraft flies. Transmit data to the home station EM daily via e-mail or fax. If unable to transmit data, the deployed AMU will review data daily for faults and send a computer disk with the Time Temperature Cycles data by express mail to home station EM twice per week.

6.2.3.24.6. **(Added)** Input data into IMDS and notify EM of any serially-tracked engine component changes.

6.2.3.25. **(Added)** EM will present the Pacer engine status weekly at maintenance meeting.

6.2.3.25.1. **(Added)** Pacer engines removed from any aircraft that is down for maintenance more than 10 duty days should be reinstalled into an aircraft active in the flying schedule.

6.2.6.10. Submit additions, deletions, or changes to work center mnemonics in writing to the 52 MOS/IMDS organizational mailbox. Updates to organizational tables will be restricted to the Maintenance Management Analysis (MMA) section.

6.2.6.16.4.1.1. IMDS Database Management section is responsible for maintaining all IMDS user identifications (ID). Personnel requiring a user ID must submit a DD Form 2875, *System Authorization Access Request*. Completed forms will be e-mailed to 52 MOS/IMDS organizational mailbox.

6.2.6.16.4.1.2. **(Added)** All DBM User ID requests/trouble-tickets have up to a 72-hour turnaround suspense. All requests will be e-mailed to the 52 MOS/IMDS organizational mailbox.

6.2.6.16.4.8.1. In the event IMDS is down, units will maintain AFTO Form 349, *Maintenance Data Collection Record,* and IMDS screenshots until IMDS becomes available. Data will be input into IMDS by the units.

6.2.6.16.4.9.1. **(Added)** Background privileges will be granted on an as-needed basis.

6.2.6.16.4.9.2. **(Added)** The MMA section will not print any background reports for units.

6.2.6.16.4.15.1. **(Added)** (Transaction Identification Code access letters will be submitted through the appropriate IMDS subsystem manager for approval and forwarded to the IMDS DBM section. Letters must include the name, employee number, individual user ID, security profile, and signature of section supervisor and subsystem manager.

6.2.6.16.6.9. **(Added)** Sections are responsible for changing erroneous Job Data Documentation data in IMDS by utilizing screen 907. The DBM will coordinate changes that cannot be made at the base level.

6.2.6.16.6.9.1. **(Added)** Some IMDS entries are not correctable; therefore, units need to put an "ER" in the Data Discrepancy Report activity identifier block.

7.1.5.1. **(Added)** Plans, Scheduling, and Documentation (PS&D) will:

7.1.5.1.1. **(Added)** Comply with decentralized records reviews during all aircraft automated jacket file reviews. Alternately, all decentralized records by maintaining work center may be reviewed at one time as long as proper documentation of event occurs.

7.1.5.1.2. **(Added)** Use decentralized Records Checklist for all record reviews.

7.1.6.1. **(Added)** Egress, Aircrew Flight Equipment, Fuel, Structural Maintenance, Squadron Flight Line Specialist and Weapons shops will:

7.1.6.2. **(Added)** Inform the applicable PS&D of all out-of-cycle Time Change Item (TCI) removals and installations. Ensure all scheduled or unscheduled TCI removals and installations are documented in IMDS/GUI.

7.1.6.3. **(Added)** Load replacement TCI's data into IMDS via screen 42. Accurate documentation of the date of manufacture and lot number is essential to ensuring correct replacement date.

7.1.6.4. **(Added)** Assist PS&D in assuring the accuracy of the IMDS TCI database with periodic reviews.

7.1.6.5. **(Added)** Ensure proper installed-on-chain relationship between part/serial numbers and the next higher assembly in IMDS.

7.1.6.6. **(Added)** Maintenance Operations Flight (MOF) PS&D will:

7.1.6.7. **(Added)** Process IMDS screen 372 (load job standard) if applicable for all Special Inspections (SI) and TCI items (except egress/Aircrew Flight Equipment (AFE) items).

7.1.6.8. **(Added)** Validate all IMDS snapshots are received from Egress.

7.1.6.9. **(Added)** Egress will:

7.1.6.10. **(Added)** Load, delete, install, and remove parts and establish the job standard for all applicable egress SIs and TCIs in IMDS. Straight line removals and installations will not be approved.

7.1.6.11. **(Added)** Submit all IMDS snapshots electronically to MOF PS&D NLT 1 duty day after maintenance action.

7.1.12. Manual Job Control Numbers (JCN).

7.1.12.1. **(Added)** Performing work centers will:

7.1.12.2. **(Added)** Assign and control their block of JCNs.

7.1.12.3. **(Added)** Enter all manual JCNs into IMDS for job data collection purposes within 1 duty day after IMDS is returned to an operational status.

7.1.12.4. **(Added)** Each performing work center is assigned a block of manual JCNs and record job data documentation. An organizational/functional listing of these JCN blocks is provided in Table 7.1. **Note**: In the event that a block of JCNs is exceeded, notify MOF PS&D for additional JCN blocks.

Table 7.1. (Added) JCN Functional Listing.

(Added) JCN Functional Listing.	JCN BLOCKS
ORGANIZATIONAL/FUNCTIONAL	
IMDS (Reserved)	0001-5000
NOT ASSIGNED AT THIS TIME	5001-5050
REPAIRABLE ASSET MANAGEMENT	5051-5100
52 MXG QA	5101-5215
DEPOT/CONTRACT FIELD TEAM	5216-5250
52 MOS PS&D	5251-5350
480 AMU SPECIALIST FLT.	5351-5400
480 FS AFE	5401-5450
480 AMU WEAPONS FLT.	5451-5500
480 AMU DEBRIEF	5501-5600
480 AMU Airplane General (APG)	5601-5750
52 EMS INSPECTION SECTION (F-16 AIRCRAFT ONLY)	5751-5800
480 AMU Scheduler	5801-5850
480 AMU DEPLOYED	5851-5900
480 AMU SUPPORT SECTION	8301-8350
NOT ASSIGNED AT THIS TIME	5901-6500
NOT ASSIGNED AT THIS TIME	8351-8400
81 AMU SPECIALIST FLT.	6501-6550
81 FS AFE	6551-6600
81 AMU WEAPONS FLT.	6601-6650
81 AMU DEBRIEF	6651-6750
81 AMU APG	6751-6900
52 EMS INSPECTION SECTION (A-10 AIRCRAFT ONLY)	6901-6950
81 AMU Scheduler	6951-7000
81 AMU DEPLOYED	7001-7050
81 AMU SUPPORT SECTION	8401-8450
52 CMS EGRESS SECTION	7051-7150
52 CMS FUELS SECTION	7151-7250

52 CMS ELECTRO/ENVIRO SECTION	7251-7300
52 CMS HYDRAULICS SECTION	7301-7350
52 CMS AVIONICS FLIGHT	7351-7400
52 CMS PROPULSION FLIGHT	7401-7500
52 EMS TRANSIENT ALERT SECTION	7501-7550
52 EMS STRUCT MAINTENANCE SECTION	7551-7600
52 EMS METALS TECHNOLOGY SECTION	7601-7650
52 EMS MUNITIONS FLIGHT	7651-7750
52 EMS ARMAMENT FLIGHT	7751-7850
52 EMS CRASH RECOVERY	7851-7950
52 EMS WHEEL AND TIRE SECTION	7951-8000
52 EMS REPAIR AND RECLAMATION (R&R) SECTION	8001-8050
52 EMS AEROSPACE GROUND EQUIPMENT	8051-8200
372 DET	8451-8475
NOT ASSIGNED AT THIS TIME	8476-9999

7.1.13. **(Added)** Manual update of IMDS products.

7.1.13.1. **(Added)** The primary method for tracking all inspections, time changes, Time Compliance Technical Order (TCTO), etc. will be the Maintenance Scheduling Application Tool (MSAT). If MSAT and the MIS are not available for more than 48 hours, the AMU PS&D will use the most current MSAT data which may remain electronic as long as updates can be made. This will be used to update applicable MIS products in red ink.

7.2.1. In addition to the requirements in AFI 21-101, the following procedures apply: As a minimum, the verification will be accomplished by the Dedicated Crew Chief, AMU Decentralized Supply Support, AMU Section Chief, AMU Officer in Charge (OIC) /Superintendent, EM, Non-destructive Inspection Section (NDI). Document reviews will be documented on an AFTO 781A, *Maintenance Discrepancy and Work Document*, in the respective aircraft forms by the crew chief.

7.2.3. PS&D responsibilities.

7.2.3.1. **(Added)** Review the completed phase package to ensure all work cards are signed off and all scheduled maintenance added during the phase pre-dock and annotated on the AF 2410, *Inspection/TCTO Planning Checklist*, is complete. In the event of open discrepancies/jobs, ensures job control numbers are valid, scheduled and appropriately deferred.

7.2.3.2. **(Added)** Print the phase package and all added maintenance work orders showing completed jobs.

7.2.4.1.1. **(Added)** F-16 AMU Scheduler will print out IMDS screen 990 for each aircraft prior to going into Cannibalization (CANN) status.

7.2.4.3.1. **(Added)** A-10 units will create a local part verification sheet, and print out IMDS screen 810 and local part verification sheet for each aircraft prior to going into CANN status.

7.2.7.5.1. **(Added)** AMU supply sections Combat Oriented Supply Operations will:

7.2.7.5.2. **(Added)** Attend monthly TCI reconciliation meeting.

7.2.7.5.3. **(Added)** Conduct a complete physical inventory of all issued time change items prior to reconciliation meeting.

7.2.9.1.1. **(Added)** EM will review and update current engine data.

7.2.9.1.2. **(Added)** Inspect entire aircraft records/jacket file and document file for accuracy (i.e. TCTO status and time change requirements/status).

7.2.9.1.3. **(Added)** Ensure the aircraft automated jacket file is with the aircraft prior to transfer or collected after arrival and contains all required data IAW Technical Order 00-20-1, *Aerospace Equipment Maintenance Inspection, Documentation, Policies, and Procedures*.

7.2.9.1.4. **(Added)** Verify all data is loaded into IMDS prior to first flight after arrival.

7.2.9.1.5. **(Added)** Verify all TCTO kits accompanying the aircraft are obtained from AMU P&S and Supply Section.

7.2.9.1.6. **(Added)** Verify correct weight and balance (W&B) date is loaded in IMDS.

7.2.9.1.7. **(Added)** AMU will perform aircraft document review (ADR) prior to first flight after arrival.

7.7.1. Forward schedule inputs NLT the 15th of each month, or as requested, to MOF PS&D.

7.8.1. Forward schedule inputs to MOF PS&D NLT 1000 each Thursday.

7.10.7. Job Standard Master Listing for Off-equipment items will be maintained by the owning work center with the assistance of MOF PS&D.

7.10.7.5. **(Added)** QA will:

7.10.7.5.1. **(Added)** Approve Job Standard (JST) requests (Load/Change/Delete) and loads them into IMDS. MOF PS&D will provide training and access as needed.

7.10.7.5.2. **(Added)** Review all profile JSTs bi-annually for accuracy.

7.10.7.5.3. **(Added)** Have full responsibility for managing all profile JSTs.

7.13. **(Added) Suspense Validation Responsibilities.**

7.13.1. **(Added)** Egress will make all time change data entries in the IMDS database, to include clearing suspenses when delegated in writing by the MOF PS&D.

7.14. **(Added) Decentralized Dash 21 Equipment Accountability.**

7.14.1. **(Added)** MOF PS&D has decentralized Dash 21 equipment accountability requirements to 52 AMXS equipment custodians as outlined in AFI 21-103, *Equipment Inventory, Status and Utilization Reporting,* and Air Combat Command/CAF supplements. Owning work centers will be responsible for assigned Dash 21 equipment. Each AMU will have a letter on file identifying the Dash 21 SPRAM account custodian by name, grade, and telephone

number and will forward the letter to MOF PS&D no later than one week after a change of custodian. AMU Supervision will ensure that MOF PS&D receives a copy of the letter.

7.15. **(Added) Cannibalization Aircraft.**

7.15.1. **(Added)** P&S will:

7.15.1.1. **(Added)** Provide lead super an AF 2410 listing all aircraft and engine inspection, time changes, TCTOs, that will come due while aircraft in CANN status and scheduled all applicable items.

7.15.1.2. **(Added)** Review the completed CANN package to ensure all annotated items on the AF 2410 is complete. In the event of open discrepancies/jobs, ensures job control numbers are valid, scheduled and appropriately deferred.

7.15.1.3. **(Added)** Ensure applicable AMU Production Superintendent signs off all items on the AF 2410.

8.16.4.1. **(Added)** See QA Checklist for FCF/OCF procedures located on the QA SharePoint site (**https://ice.usafe.af.mil/sites/52MXG/mxqa/default.aspx)**.

8.18.2. **(Added)** AMXS will:

8.18.2.1. **(Added)** Ensure aircraft has enough fuel on board to execute a take-off, normal pattern, and landing with applicable reserves, should unexpected circumstances dictate getting the aircraft airborne. A-10 only: Ensure aircraft has between 3,500 and 6,800 pounds of fuel on board. F-16 only: minimum 4,000 pounds.

8.19.3. **(Added)** When items weighing more than 2 pounds for the A-10 aircraft are removed and not reinstalled or replaced before the next flight, the equipment will be replaced with the correct ballast and reported to QA. In the event the item cannot be replaced with ballast prior to the next flight, a recalculation of the affected aircraft's W&B condition must be re-accomplished. This does not include external items such as fuel tanks, munitions, pylons, pods, chaff/flare and/or ammo.

8.19.3.1. **(Added)** When items weighing more than 2 pounds for the F-16 aircraft are removed and not reinstalled or replaced before the next flight, QA will be notified. Recalculation of the affected aircraft's W&B condition must be re-accomplished. This does not include external items such as fuel tanks, munitions, pylons, pods, chaff/flare and/or ammo.

8.19.3.2. **(Added-A)** Aircraft W&B recalculation is required by QA after engine change and prior to the next flight. A re-computation with be annotated in AFTO 781 Forms on a Red X.

8.19.3.3. **(Added)** For TCTO affecting aircraft W&B, route completed TCTO and modification information for updating W&B records to QA FCF/W&B manager for recalculation.

8.19.3.4. **(Added)** When an aircraft is declassified or reclassified for transfer, a complete chart "A" inspection is required by QA.

8.19.3.5. **(Added)** The technician removing an item meeting the criteria in Paragraph 8.23.2 will:

8.19.3.5.1. **(Added)** Document the removal action in the AFTO Form 781A, on a red X. If the correct ballast is installed, the write up can be signed off as ballast installed and connectors stowed in IAW the applicable technical order. The corrective action will refer to the next available discrepancy block where the ballast installation will be documented on a red diagonal.

8.19.3.5.2. **(Added)** Make an additional Red X entry in the AFTO Form 781A, identifying the equipment removed, ballast not installed, and W&B computation check due by QA. This entry will require re-computation of the affected aircraft weight and balance that can only be accomplished by a qualified QA W&B Inspector. After re-computation, QA will sign off the Red X and clear the AFTO 781A, entry by annotating the "Inspected By" block only and initialing the symbol block.

8.19.3.5.3. **(Added)** When the removed item is reinstalled, a re-computation of the affected W&B data will be accomplished by a qualified QA W&B Inspector.

8.19.3.5.4. **(Added)** For TCTO affecting aircraft W&B, route completed TCTO and modification information for updating W&B records to QA Functional Check Flight/W&B manager for recalculation.

8.19.3.5.5. **(Added)** Prep applicable aircraft for weigh IAW checklists located on the QA SharePoint site (**https://ice.usafe.af.mil/sites/52MXG/mxqa/default.aspx)**.

9.4.3.1. **(Added)** AMU Debrief will: Ensure the aircrew fills out the appropriate flight control worksheet for all F-16 dual flight control malfunction, F-16 un-commanded flight control malfunction, any major F-16 flight control malfunction and A-10 flight control malfunction that causes departure from normal flight. The flight control worksheet will be given to either the Flight Control Diagnostics Team-Team Chief or Impound Official (IO).

9.4.3.1.1. **(Added)** F-16s will complete the Dual Flight Control Failure/Un-Commanded Flight Control Debriefing checklist and Systems Program Office Unexplained Flight Maneuver procedures checklist located on the QA SharePoint site (**https://ice.usafe.af.mil/sites/52MXG/mxqa/default.aspx)** .

9.4.3.1.2. **(Added)** A-10s will complete the Flight Control Malfunction Worksheet located on the QA SharePoint site (**https://ice.usafe.af.mil/sites/52MXG/mxqa/default.aspx)**.

9.4.3.1.3. **(Added)** Add the following discrepancy to the aircraft AFTO 781A forms and a work center event to the original flight control malfunction job in IMDS for QA: "QA review of FCDT maintenance due."

9.4.3.2. **(Added)** When required, FCDT will consist of a team chief, QA inspector and personnel holding a 5/7 skill level in the preferred Air Force Specialty Code for the FCDT.

9.4.3.2.1. **(Added)** The team chief has overall responsibility and will supervise the FCDT. When required, the team chief can request additional craftsmen. Team chiefs will review the flight control worksheet completed by the aircrew to aid in troubleshooting. A-10 FCDT may use A-10 Flight Control Settings sheet located on the QA SharePoint site (**https://ice.usafe.af.mil/sites/52MXG/mxqa/default.aspx)** as required. The flight control maintenance worksheet is placed in the aircraft forms binder directly behind the red impoundment placard until the aircraft is released from impoundment. Ensure the flight control maintenance worksheet original is filed in the aircraft jacket file and a copy is forwarded to QA.

9.4.3.2.2. **(Added)** Each AMU will identify FCDT members in writing and ensure they are qualified

9.4.3.2.3. **(Added)** To enhance the integrity of maintenance actions, one FCDT per impounded aircraft will be dedicated to the malfunction for the duration of the impoundment.

9.4.3.2.4. **(Added)** FCDT members must possess a minimum of a 5-skill level. The team chief will be a qualified 7-level supervisor, authorized to clear flight control system "Red X" discrepancies.

9.4.12. **(Added)** Foreign Object (FO) related impoundments:

9.4.12.1. **(Added)** Ensure all aircraft impoundments for FO i.e., lost or missing items or tools have a separate 5 and 7-level FO inspection accomplished and documented in the aircraft's AFTO Form 781A prior to release. Both 5 and 7 level inspections will be documented as a red dash discrepancy.

9.5.2. **(Added)** Utilize the IO checklist located on the QA SharePoint site (**https://ice.usafe.af.mil/sites/52MXG/mxqa/default.aspx)** for all impoundments.

9.6.1.1. **(Added)** QA will insert a red placard in front of the aircraft forms binder or equipment forms and initiates a CAF Form 147, *Quality Assurance Impoundment Record*.

9.6.5.1. For off-equipment utilize applicable IMDS/Log books/local file or other source documents as impoundment record.

9.6.11.1. If approved, the Impoundment Release Authority will clear the forms by entering "Investigation Complete, All corrective actions have been reviewed, aircraft or equipment released" referring to original discrepancy in the "corrective action" block, signing the "inspected by" block and initialing over the Red X symbol

9.6.14. **(Added)** Impoundments transferred from an aircraft to an equipment item will be treated as a separate impound.

10.2.1.1.1. **(Added)** Bore scopes identified for FO searches must be permanently marked identifying them for FO use only, example "FO SEARCH USE ONLY" and may be signed out by non-bore scope certified personnel.

10.2.1.2.1. **(Added)** Composite Took Kit (CTK) Dispersal Inventory Procedures. CTKs dispersed during exercises; higher headquarters inspections or contingencies will be inventoried and documented on CAF Form 140, *Composite Tool Kit (CTK) Inventory and Control Log*, (installed for dispersal only) at each shift change. AMU support or Cell Chief will maintain a record of the location of dispersed CTKs. AMU support or Cell Chief will perform inventories once per every 24 hours. CTKs will require a 100 percent inventory upon redeployment or End of Exercise.

10.2.1.3.1. **(Added)** Warranty Tools. Tool Accountability System (TAS) will be the primary method for tracking all warranty tools. Warranty tools when unserviceable, will be segregated from non-warranty tools until replaced by vendor.

10.2.1.4.1. Unserviceable CTK items will have the Equipment Identification Designator number made unreadable before disposal.

10.2.1.5.1. **(Added)** When mission needs require, Maintenance OIC/Superintendent will approve and coordinate with the support section (as applicable) to transfer CTKs and equipment at the job site.

10.2.1.6.1. **(Added)** When an item or tool that was used on or around an aircraft is discovered missing after an aircraft has taxied, maintenance supervision will notify the MOC and the FS Top-3 who in turn will contact the pilot and recall the aircraft if airborne.

10.2.1.8.1. **(Added)** Personal bunny suits and booties are not authorized. Bunny suits will not be worn except for their intended use.

10.2.1.9.2. **(Added)** In use rags will be controlled in TAS. Missing rags will be treated as lost tools.

10.2.1.13.1. **(Added)** The Fabrication Support Section is a joint CTK between Metals Technology and Aircraft Structural Maintenance with the CTK identifier as "STES" for both sections.

10.2.1.14.1. **(Added)** Crash Recovery CTK and Hydrazine Response CTKs for Fuel System Repair.

10.2.1.14.1.1. **(Added)** Crash recovery equipment in emergency response vehicles (ERV), trailers, and mobility kits will be considered a CTK.

10.2.1.14.1.2. **(Added)** Hydrazine response equipment/tools contained within assigned response vehicles will be considered a dispatchable CTK.

10.2.1.14.1.3. **(Added)** Positive control of equipment will be maintained through the Master Inventory Listing, AF Form 1297, *Temporary Issue Receipt*, CAF Form 140, and CAF Form 145*, Lost Tool/Object Report*.

10.2.1.14.1.4. **(Added)** Equipment will be inventoried each duty day during the vehicle operator inspection and will be annotated on CAF Form 140. A copy of CAF Form 140 will be maintained in each ERV to document use of equipment, inventories, and inspections.

10.2.1.15.1. **(Added)** For occasions when a single person must sign in and sign out a CTK or CTK item, an on duty supervisor will inspect the CTK or CTK item upon turn-in and document appropriately.

10.2.1.16.1. **(Added)** Support section Non-Commissioned Officer in Charge (NCOIC) will appoint individuals in writing and a copy will be posted in the tool room. Tool room appointed individuals will be responsible for controlling access to the tool room.

10.3.6.5.2. **(Added)** Remove EID from all Hazardous Material items prior to disposal/turn-in.

10.3.9.1. . (Added) Inspection mirrors, magnetic "pick-up" tools, adjustable pliers, ratchets and ratcheting head torque wrenches, and grounding clips with removable screws will have adhesive or sealant applied on the screw to eliminate Foreign Object Damage (FOD) potential

10.3.15. . (Added) Master CTK Continuity Program (Book or electronic file).

10.3.15.1. **(Added)** Each work center will maintain a master CTK continuity book that will contain the following information for all CTKs under the work center's control.

10.3.15.1.1. **(Added)** Appointment letters for all CTK custodians.

10.3.15.1.2. **(Added)** Change of custodian inventory letter and/or the Annual inventory documentation of the 100% inspection of the entire tool room or support section, whichever is more recent.

10.3.16. **(Added)** Sub-located Airframe, Power plant General (APG) CTKs in Protective Aircraft Shelter (PAS).

10.3.16.1. **(Added)** The CTK custodian will designate a PAS for each sub-located CTK by letter.

10.3.16.2. **(Added)** The CTKs must be physically secured to the PAS with cable and lock, when not in use.

10.3.16.3. **(Added)** At anytime accountability of all contents cannot be confirmed, the Production Superintendent and AMU supervision will be immediately notified.

10.3.16.4. **(Added)** A member of support will perform a 100% inventory of all CTKs assigned to the PASs that have been used in the previous 24 hour period (i.e. after swing shift, weekend duty).

10.3.16.5. **(Added)** Sign-Out Procedures.

10.3.16.5.1. **(Added)** APG technicians who use sub-located CTKs will sign out the keys and folder from the respective support section via the TAS.

10.3.16.8. **(Added)** Shift Turnover Procedures.

10.3.16.8.1. **(Added)** The first shift user must complete a 100% inventory and ensure the CTK is in inspection order, prior to requesting a turn in/turn over inspection.

10.3.16.8.2. **(Added)** Turnover personnel must pick up the CTK folder from support prior to going to their assigned PAS. Once at the PAS, the individual performs a 100% inventory to ensure all items in the CTK are accounted for.

10.3.16.8.3. **(Added)** The turnover personnel will sign in the CTK on the CAF Form 140 relieving the first shift user of responsibility.

10.3.16.8.4. **(Added)** The turnover personnel will then sign the next line on the CAF Form 140, assuming responsibility of the CTK. Under no circumstances will a person sign in a CTK he/she has signed out.

10.3.16.8.5. **(Added)** The departing shift personnel will return the folder to support. Support personnel will update TAS to reflect change in ownership by clearing that individual's employee number.

10.3.16.9. **(Added)** Turn-In Procedures.

10.3.16.9.1. **(Added)** When maintenance is complete or the CTK will not be used by the next shift and the CTK is ready for turn-in, a support representative or AMU appointed representative will inspect the CTK to ensure all items are accounted for. He/she will sign the CAF Form 140 verifying that all items are accounted for. Under no circumstances will a person sign in a CTK he/she has signed out. Support representative should be used as the primary means for signing CTKs. Designated CTK representatives should only be used as last resort or when mission requires.

10.3.16.10. **(Added)** Broken/Lost Tool Replacement/Documentation.

10.3.16.10.1. **(Added)** Units will use TAS and 52 MXG Form 146, *Broken, Removed, and Missing Tool Log* to document missing/broken/removed tools. Tools/items that show normal deterioration that does not change the intended purpose/design of the tool/item will not require documentation on the 52 MXG Form 146.

10.4.1.1.2. Blade blending tools, and engine bore scopes will be loaded and tracked in TAS as a restricted item. Using work centers will track authorized personnel and provide current list to support sections.

10.4.2.2.1. **(Added)** CTK and/or Equipment Inspection Requirements. Units will accomplish, at a minimum, 180 day inspections on all dispatchable CTKs and equipment.

10.5.1.1. **TAS World Wide ID Code.** Units will use Table 10.2 to obtain the first four of their respective TAS World Wide Identification Code for CTKs, non Custodian Authorization/Custody Receipt Listing Equipment, and Assignment of CTK Numbers for Tools.

11.19.1.1. **(Added)** By designation of the 52 MXG/CC the QA Supervisor/Superintendent will be the approval authority for locally designed tools and equipment not specified by engineering order, TCTO or TO. The 52 EMS Fabrication Flight Commander/Chief will be the approval authority for non-aeronautical or non-load bearing items that do not interface with aircraft or support equipment.

11.19.1.2. **(Added)** 52d Logistics Readiness Squadron Flight Service Center (FSC) is responsible for ensuring that this maintenance capability is not abused.

11.19.2.1. **(Added)** Aircraft parts or equipment that do not have Source of Maintenance and Recoverability codes contained in TOs require the requestor to contact one of the following to authorize manufacture: Item Manager, System Program Office or engineering approval. Authorization must be in written form, (E.g. memo for record, 202 or 107 approval, etc.).

11.19.2.2. **(Added)** Requestors will provide appropriate documentation to fabricating authority (AFTO 350, MXG Form 869, *Local Manufacture Request*, if applicable for procurable items requiring Local Manufacture (LM), DD Form 1348-6, *DOD Single Line Item Requisition System Document* (if applicable), IMDS screen 122 snapshot, and technical drawings.

11.19.2.3. **(Added)** Drawings can be obtained through the Engineering Data Services Center operated by Air Force Engineering and Technical Service.

11.19.5. **(Added)** Requesting activity will initiate local man paperwork through the FSC.

11.19.6. **(Added)** QA will review all LM items bi-annually for applicability and current configuration. Users will inform/update QA LM monitor of any items not built per TO for tracking purposes.

12.1.10.1.1. **(Added)** The Weapons Award programs include Load Crew of the Quarter, Armament Systems Technician/Supervisor/Manager of the Quarter & Annual awards.

12.1.15.1.1. **(Added)** The primary "safe locations" for an unsafe gun on Spangdahlem AB are located adjacent to Taxiway Bravo and Delta end-of-runway areas. Alternate "safe locations" are located adjacent to Taxiway Alpha and Echo end-of-runway areas (see Hot Gun Areas diagram located on the QA SharePoint site (**https://ice.usafe.af.mil/sites/52MXG/mxqa/default.aspx)**).

12.1.15.1.2. **(Added)** All aircraft returning with hung munitions will be directed to Arm/De-arm Pads 1 & 2 adjacent to Taxiway Bravo and Arm/De-arm Pads 3 & 4 next to Taxiway Delta (see Hot Gun Areas diagram located on the QA SharePoint site (**https://ice.usafe.af.mil/sites/52MXG/mxqa/default.aspx)**).

12.1.15.2.1. **(Added)** Hung ordnance will consist of any munitions item which fails to release, fails to fire from aircraft as designed, gun system which fails to fire, rotate or jams and any unsafe munitions condition discovered by ground crews.

12.1.15.2.2. **(Added)** MOC will run appropriate Emergency Actions Check Sheet.

12.1.15.2.3. **(Added)** Hung Ordnance Response Team consists of the following: On Scene Commander (OSC) (Fire Official), EOR Super, one qualified weapons load crew. The following representatives will be present if required: 52 FW Weapons Safety, 2W1X1 Weapons Supervisor, QA, Armament, Air Force Engineering and Technical Service (AFETS) and Explosive Ordnance Disposal (EOD).

12.1.15.2.4. **(Added)** The OSC will remain in command of the aircraft until it is in a safe condition. Only people identified in Para 12.1.15.2.3 of this instruction will be allowed in the area to assess the safe condition of the aircraft.

12.1.15.2.5. **(Added)** The senior ranking 2W1X1 will maintain radio contact with the MOC at all times.

12.1.15.2.6. **(Added)** The load crew will establish verbal communication with the pilot prior to safing the aircraft to verify armament switches are off, safe, or normal.

12.1.15.2.7. **(Added)** The pilot will remain in the aircraft until the status of the munitions can be determined. If munitions cannot be safed, the aircraft will be shut down and safed for maintenance. **Note**: Before safing begins, the pilot and all personnel not listed in Para12.1.15.2.3 will be cleared from the area.

12.1.15.2.8. **(Added)** After initial investigation is performed and OSC releases aircraft to maintenance unit, a Mission Design Series certified 7-level 2W1X1 will supervise the safing of hung ordnance and make the final decision on whether the aircraft is safe to return to the parking area or to be shut down in the de-arm area. Aircraft will not return to parking area with unsafe munitions. Munitions will be downloaded by EOD in the de-arm area if they cannot be safed.

12.1.15.2.9. **(Added)** The appropriate weapons section chief will ensure: Impulse carts are isolated until the cause of the malfunction is determined. Malfunctioned munitions items or suspension equipment and cables have an AFTO Form 350 tag and an IMDS 122 printout attached. If the equipment is impounded the AFTO Form 350 tag will have a red border to signify the impoundment and suspect item returned to the Munitions Storage Area/Armament Flight for investigation and possible deficiency reporting.

12.1.15.2.10. **(Added)** If a malfunctioning munitions item (live or inert) causes a mishap, it is important to preserve the evidence to the maximum extent allowable by operational requirements and safety. The WWM, with concurrence of the 52 MXG/CC, will notify the Munitions Rapid Response Team IAW this publication, para 9.7.4 of follow-up action on suspected suspension or munitions item until determination is made as to cause. The item owning agency will determine final problem and submit appropriate Deficiency Report (DR) spell as required.

12.1.15.2.11. **(Added)** Weapons Flight Chiefs/Armament supervision will designate someone to track suspected bad equipment. They will determine final problem and submit DR and USAFE Base Form 40, *Dull Sword Worksheet* (for nuclear certified pieces of equipment) as required.

12.1.15.2.12. **(Added)** F-16/A-10 Unsafe Gun Procedures.

12.1.15.2.13. **(Added)** If the causes of a gun system jam cannot be easily determined or for recurring jams, it is important to preserve the evidence to the maximum extent allowable by operational requirements and safety. The WWM, with concurrence of the 52 MXG/CC, will determine the need to notify the MRRT IAW AFI 21-101, Para 9.7.4, in this case, notifying the MRRT is not mandatory unless a safety issue exists.

12.1.15.2.14. **(Added)** For any jammed Universal Ammunition Loading System or Ammunition Loading Assembly, they will be cleared of all live ammunition at either at the loading location (HASs) or towed out to Conventional Maintenance for clearing as the Arm Shop/gun vault is not cited for live munitions.

12.1.15.2.15. **(Added)** F-16 Aircraft Specific Unsafe Gun Procedures, TO 1F-16C-33-1-2CL-100, *Non-Nuclear Munitions Loading Procedures and Delayed Flight or Alert Immediately Prior to Launch and Safing,* and the following:

12.1.15.2.15.1. **(Added)** Shut down and safe aircraft.

12.1.15.2.15.2. **(Added)**

12.1.15.2.15.3. **(Added)** Disconnect gun electrical lead.

12.1.15.2.15.4. **(Added)** If gun bolts are not visible in the clearing cam path, install gun hold back tool and attempt to manually rotate gun one complete cycle.

12.1.15.2.15.5. **(Added)** If gun does not rotate, verify that no live rounds are chambered. Guns will be cleared at the EOR de-arm area prior to taxiing or towing to a hardened aircraft shelter.

12.1.15.2.15.6. **(Added)** A qualified weapons load crew will remove jammed system components from aircraft and transport it to Armament Flight for inspection/repair after all live rounds are removed, and submit a DR as required.

12.1.15.2.15.7. **(Added)** If further difficulties are encountered, the senior ranking 2W1X1 will contact MOC, EOD and Armament Flight. A ground emergency will be declared. At this time all safing/clearing procedures will cease. When EOD personnel arrive, the senior ranking 2W1 will brief them on the status of the gun. With assistance from Armament Flight personnel, the system will be disassembled on site until all live rounds can be removed safely from the system.

12.1.15.2.15.8. **(Added)** If it is determined the gun system cannot be disassembled safely to remove the jammed ammunition, the qualified F-16, 7-level Hot Gun team will remove the suspect parts from the aircraft. If the gun system cannot be safed after removal, hot gun personnel will remove all gun parts that can be removed safely prior to EOD receiving the gun. Hot gun personnel are responsible for ensuring all salvageable parts are returned to the Armament Flight.

12.1.15.2.16. **(Added)** A-10 Aircraft Specific Unsafe Gun Procedures, TO 1A-10C-33-1-2CL-100, *Non-Nuclear Munitions Loading Procedures Immediately Prior to Launch and Safing*, and TO 1A-10C-2-94JG-6, *Armament 30mm Gun System* and the following:

12.1.15.2.16.1. **(Added)** The gun system is not considered safe until the safety pin is installed and it is physically and visually verified that there are no live rounds in the gun.

12.1.15.2.16.2. **(Added)** If munitions/gun cannot be safed, the aircraft will be shut down and safe for maintenance performed. EOD personnel will be notified to dispatch to the scene.

12.1.15.2.16.3. **(Added)** If further difficulties are encountered, the senior ranking 2W1X1 will contact MOC and EOD. A ground emergency will be declared. At this time all safing/clearing procedures will cease. When EOD personnel arrive, the senior ranking 2W1 will brief them on the status of the gun.

12.1.15.2.16.4. **(Added)** If it is determined the gun cannot be safed in the aircraft, the qualified A-10, 7-level Hot Gun team will remove the gun from the aircraft. If the gun cannot be safed after removal, hot gun personnel will remove all gun parts that can be safely removed prior to EOD receiving the gun. Hot gun personnel are responsible for ensuring all salvageable parts are returned to the Armament Flight.

12.1.15.2.17. **(Added)** The following will be accomplished after aircraft is safed and returned to the parking area:

12.1.15.2.17.1. **(Added)** For Inadvertent/Multiple Release aircraft will be automatically impounded and armament shop/munitions control will be notified. After notification allow Armament Flight and munitions personnel to evaluate equipment prior to removal.

12.1.15.2.17.2. **(Added)** Racks, pylons, or launchers will not be disconnected or removed until directed by the impoundment authority. Once rack, pylon, or launcher is identified as faulty and authorized to be removed from the aircraft the impoundment will be transferred from the aircraft to the piece the of equipment and impound authority will be assumed by 52 EMS personnel identified as IOs.

12.1.15.2.17.3. **(Added)** Racks, pylons, launchers, or other armament components installed on affected aircraft and determined to be malfunctioning, will immediately be tagged IAW Para 12.1.15.2.9, isolated, removed and taken to the Armament Systems Flight in its current condition for verification and repair or coordination with munitions control for pickup. Basic Post-flight procedures will not be performed on equipment involved in an inadvertent or multiple releases. DR will be submitted as required.

12.1.15.2.17.4. **(Added)** The impoundment official will ensure all back shops are fully briefed on the problem. Track all equipment to determine final cause prior to releasing impoundment. Complete required DR and USAFE Base Form 40 actions on Nuclear Certified Equipment.

12.2.3. **(Added)** Weapons Standardization Responsibilities.

12.2.3.1. **(Added)** Provide monthly load training schedule to PS&D NLT third Monday of each month for inclusion in the following month's schedule.

12.2.3.2. **(Added)** Coordinate with PS&D Section to schedule aircraft requirements NLT the second Monday of each month for the following month.

12.2.3.3. **(Added)** Notify appropriate AMU of all maintenance discrepancies incurred during load training, and annotates AFTO Form 781 accordingly.

12.2.3.4. **(Added)** Weapons Standardization will provide checklist qualification training and tracking.

12.2.3.4.1. **(Added)** Load crew member must be a 5-level and be recommended by AMU Weapons Section Chief. Training will be conducted on an annual basis and documented in the Weapons Load Crew Management Tool.

12.2.4. **(Added)** AMU Weapons Section Chief Responsibilities.

12.2.4.1. **(Added)** Ensure that all load crew members are qualified on AGE, fire extinguisher training, applicable aircraft egress/weapons academics, and #3 personnel have an AF Form 483, *Certificate of Competency*, prior to initial certification (exceptions must be approved by Weapons Standardization Superintendent prior to start of initial certification). Ensure personnel bring an IMDS rip and their training records to Weapons Standardization for review when reporting for initial training.

12.2.4.2. **(Added)** Schedule all Semi-annual evaluations, Minimum Proficiency Requirement Loads, and initial certification requirements by the 25th day of the prior month. The Weapons Section Chief will coordinate scheduling changes with the appropriate Load Standardization Crew (LSC).

12.2.4.3. **(Added)** Provide code-out letters for crewmembers meeting requirements of Para 12.12.

12.2.5. **(Added)** Loading Specifics: See WSS memorandum.

12.2.6. **(Added)** Transient Aircraft Procedures.

12.2.6.1. **(Added)** Transient alert/airfield management will notify MOC of transient aircraft arriving with live/training ordnance. MOC will notify Weapons Standardization for safing.

12.2.6.2. **(Added)** Any live ordnance will be safed in an approved de-arm area.

12.2.7. **(Added)** Aircraft availability procedures.

12.2.7.1. **(Added)** PS&D will:

12.2.7.1.1. **(Added)** Schedule aircraft trainer for load crew training Monday through Friday each week, as identified in the weekly shared resources meeting.

12.2.7.2. **(Added)** MOC will:

12.2.7.2.1. **(Added)** Maintain keys for Hangar 1 and provide these keys to maintenance personnel for access during non-duty hours. Document key control log when keys are signed out.

12.2.7.3. **(Added)** AMU will ensure:

12.2.7.3.1. **(Added)** Training aircraft is positioned to meet training schedule.

12.2.7.4. **(Added)** Aircraft meet the following requirements.

12.2.7.4.1. **(Added)** Aircraft has no discrepancies preventing power application and all weapons release systems are operational.

12.2.7.4.2. **(Added)** Intercom systems are operational.

12.2.7.4.3. **(Added)** Ejection/Maintenance seat installed and drip pans positioned.

12.2.7.4.4. **(Added)** A-10 aircraft will be configured with a serviceable Dual Rail Adapter, two LAU-105 launchers, and all associated hardware.

12.20.1. Time standard for Air-launched Decoy Missile-160 will be 25 minutes with 7 minutes added for each additional store. Time standard for BDU-33s on a TER-9A will be 20 minutes and 30 minutes on a SUU-20. When loading in ground crew chemical-defense ensemble add 5 minutes per store. (A-10 Only) Ground Burst Unit-31/38 time standard is 25 minutes with 7 minutes added for each additional store.

14.4.4. Member must receive initial certification within 180 days of formal course completion or re-attend the formal course prior to certification.

14.4.4.1.1. **(Added)** Supervisors/individual will ensure training records are properly documented to reflect current IMDS qualification/certification/decertification status.

14.6.2.1. **(Added)** The Wing Avionics Manager serves as the Aircraft Structural Integrity Program (ASIP) project officer.

14.6.3.1.2.1. **(Added)** Each AMU OIC will appoint an ASIP monitor and alternate by letter and forward the letter to the 52 MXG ASIP Program Manager for the Specialist Sections and 81st Debrief Section.

14.6.5.1.1. **(Added)** All ASIP monitors are required to have access to the OC-ALC/Aircraft Structural Integrity Management Information System (ASIMIS) website. (**https://asimisweb.tinker.af.mil/)**

14.6.5.2.1. **(Added)** ASIP monitors will document Crash Survivable Flight Data Recorder/ADR/Individual Airframe Tracking system maintenance in a monthly report and forward them to the ASIP Project Officer, by the 5th day of the following month.

14.6.5.2.2. **(Added)** 480 AMU Monthly Report will include Aircraft tail number, date last download accomplished, download hours, date sent to Tinker Air Force Base, Signal Acquisition Unit/Crash Survivable Memory Unit part numbers and serial numbers, part on order status and document number and time to next download.

14.6.5.2.3. **(Added)** 81 AMU Monthly Report will consist of an AFTO Form 11, *A-10 Recording Systems Status,* with aircraft tail number, aircraft status flight number for Improved Electronic Processor Unit (IEPU) equipped aircraft and any notes needed filled out. ADR data will be uploaded to Aircraft Data Acquisition and Distribution System weekly.

14.6.5.2.3.1.1.1. **(Added)** ASIMIS website will be checked for malfunctioning ASIP aircraft components to include IEPU and Counting Accelerometer Systems. ASIP discrepancies will be loaded into IMDS.

14.6.5.2.4. **(Added)** 81st AMU Specialist Section will download ADR data on IEPU equipped aircraft weekly.

14.6.5.2.4.1. **(Added)** 81st AMU Specialist Section will provide debrief with ADR file names for each sortie of IEPU-equipped aircraft.

14.6.5.2.5. **(Added)** 81 AMU debrief will ensure AFTO Form 278, *A-10 Flight Log,* is completely filled out before filing and input data from all AFTO 278 data into the Web Data Collection System daily. Units are required to keep 6 months of historical data.

14.6.5.2.6. **(Added)** 81 AMU Aircraft Crew Chiefs will ensure AFTO Form 278 data is filled out accurately and completely after each flight and delivered to debrief.

14.6.5.7. **(Added)** Debrief will ensure flight numbers from ADR files, downloaded by the specialist flight, is annotated on AFTO Form 278 for IEPU equipped aircraft.

14.8.3. AMU OIC/NCOIC is responsible for the overall management of the CANN program, ensuring procedures outlined by this instruction and other directives are adhered to.

14.8.4. Production Superintendent responsibilities.

14.8.4.1. **(Added)** Production Superintendents will be the lowest supervision level approving authority for all CANN actions, except on hangar queen aircraft. CANN from hangar queen or hard broke aircraft must be approved by 52 MXG leadership.

14.8.11.1. **(Added)** AMU Supply Element (AMU SE) responsibilities.

14.8.11.1.1. **(Added)** After notification of a CANN action by the Production Superintendent, the AMU SE inputs the CANN action into IMDS.

14.8.11.1.2. **(Added)** If the CANN is from an engine, 52 CMS propulsion Jet Engine Intermediate Maintenance (JEIM) section will consult EM and will provide the AMU SE with the engine serial number from the engine that will be supplying the part. The receiving AMU SE processes the CANN in IMDS and enters a red X for the performing work center in order to print out at EM, and transfers the document number to the engine shop.

14.8.11.1.3. **(Added)** The AMU SE provides a CANN JCN to the performing work center and processes the CANN in IMDS.

14.8.11.1.4. **(Added)** The AMU SE will utilize AF Form 2414, *Verification Worksheet*, or computer generated product to track CANN actions. Minimum entries will be: JCN, aircraft tail number or engine serial number that part was cannibalized from, the aircraft tail number or engine serial number that part was cannibalized to, the approving authority, document number, nomenclature, date initiated, and date completed.

14.8.12. **(Added)** Procedures for Cannibalization of Engine Parts.

14.8.12.1. **(Added)** The propulsion flight chief is responsible for overall management and is the final authority for the engine CANN program.

14.8.12.2. **(Added)** CANN procedures at home station for serially tracked engine parts/components will be accomplished IAW the Engine Cannibalization Worksheet located on the QA SharePoint site (**https://ice.usafe.af.mil/sites/52MXG/mxqa/default.aspx)**. JEIM is responsible for maintaining completed CANN worksheets for serially tracked engine components/parts.

14.8.12.3. **(Added)** AMU personnel will order required part/component.

14.8.12.4. **(Added)** If CANN action is from an engine installed in an aircraft, AMU will return completed worksheet to JEIM.

14.8.12.5. **(Added)** AMU SE will transfer document number to Propulsion Flight and change delivery destination, mark for to donor engine serial number, Urgency Justification Code to 1M, and Standard Reporting Designator (SRD) to XBD (F110 engine), or XAC (TF34 engine).

14.8.12.6. **(Added)** CANN actions from suspect/mishap engines will be coordinated through the propulsion flight chief or designated representative to ensure affected systems/components are not used on serviceable aircraft/engines until the affected system/components have been evaluated/inspected properly and tested for serviceability.

14.8.13. **(Added)** Propulsion flight CANN procedures for serially tracked engine parts/components between uninstalled engines. **Note:** Swapping life-limited components between uninstalled engines to align component time remaining is not considered a CANN action.

14.8.13.1. **(Added)** Propulsion flight will furnish EM with recipient and donor engine information: Engine#, nomenclature of part/component and Part Number/Serial Number.

14.8.13.2. **(Added)** All CANN actions will be annotated in the engine work package and verified by EM.

14.8.13.3. **(Added)** Propulsion flight supply section will change the mark for to donor engine serial number, unit justification code to (1M), and SRD to XBD (F110 engine), or XAC (TF34 engine).

14.13.5.1. **(Added)** Immediately-prior-to-launch and "Safing" procedures in aircraft parking areas will not be the norm and will only be allowed after coordination and approval between 52 FW Safety, 52 OSS/OSA (Airfield Management) and the 52 MXG/CC.

14.13.5.2. **(Added)** The manning requirements for arm/de-arm.

14.13.5.2.1. **(Added)** EOR will consist of two F-16 and one A-10 arm crews; one F-16 and one A-10 de-arm crew. The specific skill levels are outlined in Figure 14.1. For F-16s and Figure 14.2. for A-10s.

Figure 14.1. (Added) F-16 EOR Crews.

ARM CREW	**DE-ARM CREW**
Two APG: One 7 Level, One 3/5 Level	One Marshalling qualified individual
Two Weapons: One checklist qualified, One 7/5 Level	Two Weapons: One checklist qualified, one 3/5 Level

Figure 14.2. (Added) A-10 EOR Crews.

ARM CREW	DE-ARM CREW
Less than 12 A/C-	One Marshalling qualified individual
-Two APG: One 7 Level, One 5/3 level.	
More than 12 A/C-	Two Marshalling qualified individuals
-Four APG: One 7 Level, One 5 Level, Two 5/3 Levels.	
Less than 12 A/C-	
-Two Weapons: One checklist qualified, Two 7/5/3 level.	Two Weapons: One checklist qualified, Two 7/5/3 level.
More than 12 A/C-	
-Four Weapons: Two checklists qualified, Four 7/5/3 levels.	Four Weapons: Two checklists qualified, Four 7/5/3 levels.

14.13.5.3. **(Added)** Additional weapons personnel (3/5 level) are required when live munitions are present at EOR. Units will ensure that a certified weapons load crew is provided at arm and de-arm (crew integrity encouraged but not mandatory).

14.13.5.4. **(Added)** Arm crews will be in place 1 hour prior to first scheduled take-off. DE-ARM will be in place NLT the first scheduled take-off time.

14.13.5.5. **(Added)** All personnel will be assigned to EOR for a 1-week period (to include weather cancellations, single unit "no-fly" days and scheduled weekend flying).

14.13.5.5.1. **(Added)** Appointments, training or leave will not be scheduled while personnel are assigned to EOR. Any deviations to this will be coordinated through the EOR Super.

14.13.5.6. **(Added)** Personnel rosters will be sent to 52 AMXS Supervision and the EOR Superintendent NLT 1700 on Wednesday prior to swap out. Crew swap out will occur on Mondays or the first duty day of the following week.

14.13.5.7. **(Added)** Section supervision will ensure all required training for EOR activities is accomplished prior to scheduling personnel for EOR duties.

14.13.6. **(Added)** Tools at EOR will be limited to those in EOR kits. Tool use at EOR will be limited to securing hardware prior to flight. All tools will remain in tool kits until an aircraft discrepancy is discovered. Upon discovery of loose items technicians may retrieve the required tool/s from tool kits, show tool/s to aircraft EOR supervisor, correct the discrepancy, and return tool/s to tool kits. Technician performing task will inventory CTK and aircraft marshaler will verify all tools are returned to kits prior to releasing aircraft for taxi.

14.13.6.1. **(Added)** The EOR 2W1X1 crew's only function is to arm the aircraft by removing all the installed safety devices. The EOR load crew chief will also perform a visual inspection of all weapons equipment and munitions. If a discrepancy is discovered the weapons EOR crew will not fix any discrepancies on the aircraft. The EOR super will notify the production superintendent and/or weapons expediter concerning what was discovered immediately.

14.13.6.2. **(Added)** Flightline load crews responding to fix the discrepancies at EOR will bring their CTK to EOR, fix the discrepancy and do a 100% CTK inspection prior to allowing the aircraft to taxi.

14.13.6.2.1. **(Added)** Load crews are only allowed to fix minor discrepancies at EOR that include tightening munitions and equipment items. The crews are not allowed to remove any items from the aircraft or connect/disconnect any items to which electrical power is applied (i.e. missile umbilical's or buffer connectors). Any weapons item not correctable at EOR will require aircraft to return to chocks. Exception: Aircrew must agree to accept aircraft rather than connect buffer connectors on AIM-120's. A disconnected umbilical on an AIM-9 will require the aircraft to return to chocks.

14.14.8.1. **(Added)** All serviceable nicks will be identified and annotated on the applicable pin wheel form (SAB Form ¾) by the inspecting technician.

14.14.9. **(Added)** Deployed Procedures.

14.14.9.1. **(Added)** Deployed units are responsible for notifying the deployed MOC and deployed FOD Monitor.

14.14.9.2. **(Added)** If MOC or the FOD Monitor are not deployed with the unit; notify the host unit and home station MOC. MOC will notify the 52 FW FOD Monitor and EM at home station. EM will be notified within 24 hours.

14.15.11. Personnel selected to operate the Auxiliary Power Unit (APU) must have a minimum of 6 months experience on the A-10 aircraft and attend an initial certification-training program.

14.15.11.3. Additional review will be documented by supervisor on AF 2426, *Training Request and Completion Notification*, provided by the Maintenance Training Flight (MTF). Retesting will not be allowed without returning signed documentation of review.

14.15.11.8. **(Added)** The 52 MXG/CC may appoint the engine run certifier/7-level maintenance technicians to serve as APU run certifiers.

14.15.13.2.1. **(Added)** Decertification/recertification procedures are the same as for the engine run program.

14.15.15.4.1.7. A designated uninstalled engine run trainer or certifier with the assistance of MTF instructors will administer and grade tests, document the AF 2426 to reflect results of testing.

14.15.15.4.1.8. Additional review will be documented by supervisor on AF 2426 provided by the MTF. Retesting will not be allowed without returning signed documentation of review.

14.15.15.5.1. A designated uninstalled engine run trainer or certifier with the assistance of MTF instructors will administer and grade tests, document the AF 2426 to reflect results of testing.

14.15.15.6.1. Unit Training Managers (UTM) in conjunction with the section chief will track all pertaining course codes for the uninstalled engine run program, hush house T-9 sound suppressor fire control panel and update 90-day proficiency run course codes.

14.15.15.7.4. **(Added)** Engine run program manager will ensure individuals are decertified in IMDS and immediately notify their supervisors and MOC of the individual's unqualified status.

14.15.15.7.5. **(Added)** Individuals decertified for more than 30 days will be removed from the engine run program.

14.15.15.7.6. **(Added)** Supervisors or UTM will inform individuals of required testing and provide the individual with an AF 2426 to be hand carried to the MTF. The section chiefs or designated uninstalled engine run trainer with the assistance of MTF instructors will administer and grade tests, document the AF 2426 to reflect results of testing, and the engine run trainer will forward one copy to the individuals UTM.

14.15.18. **(Added)** MOC Responsibilities.

14.15.18.1. **(Added)** Check IMDS or the Special Certification Roster (SCR) to verify the engine operator is current in all engine run course codes prior to approving any engine operations.

14.15.18.2. **(Added)** Advise personnel on adverse weather conditions (i.e. icing or probable icing conditions).

14.15.18.3. **(Added)** Maintain log of all engine runs performed by maintenance personnel. Engine run logs will include:

14.15.18.3.1. **(Added)** Engine operator's employee number (paper only will not be distributed on log report).

14.15.18.3.2. **(Added)** Calendar date and time.

14.15.18.3.3. **(Added)** Whether it is a weekend or a holiday.

14.15.18.3.4. **(Added)** Aircraft Type.

14.15.18.3.5. **(Added)** Aircraft tail number.

14.15.18.3.6. **(Added)** Engine type.

14.15.18.3.7. **(Added)** Number of engines being run.

14.15.18.3.8. **(Added)** Power setting.

14.15.18.3.9. **(Added)** Location (parking spot/number).

14.15.18.3.10. **(Added)** Reason for run (paper only will not be distributed on log report).

14.15.18.3.11. **(Added)** Annotate engine start and stop times.

14.15.18.3.12. **(Added)** Duration of engine run.

14.15.18.3.13. **(Added)** Initials of MOC coordinator authorizing the run (paper only will not be distributed on log report).

14.15.18.3.14. **(Added)** Name and grade of authorizing official (for after hours/ weekend/ holiday engine runs only).

14.15.18.4. **(Added)** Monitor maintenance runs on Ultra High Frequency (UHF) radio after flying hours and/or when Spangdahlem Ground Control is not available.

14.15.19. **(Added)** Other Requirements.

14.15.19.1. **(Added)** Document a red X entry on AFTO Form 781A for the installation and removal of engine run screen. Document a red – (dash) entry for engine run screen inspection. During icing conditions, an intake ice monitor is required. After initial engine start, intake/ice FOD monitor and fireguard duties may overlap (F-16 only). Run screens will be utilized at all times, unless tech data specifies otherwise.

14.15.19.2. **(Added)** During engine runs inside the PAS or hush house, all panels, parts, hardware, AGE, and test or support equipment not secured will be removed to prevent ingestion by engine or being blown about by the air turbulence created during engine operation.

14.15.19.3. **(Added)** Due to the high volume of airflow through the hush house at power settings above idle, all personnel not actively engaged in troubleshooting will clear the hush house bay and report to the control room (F-16).

14.15.19.4. **(Added)** Before engine start the engine operator will contact Spangdahlem Ground Control via UHF frequency or MOC after flying hours and/or when Spangdahlem Ground Control is not available, and give aircraft tail number and location. Advise MOC and Spangdahlem Ground Control if a preserved engine is being operated prior to starting engine. Radio communication will be monitored continuously with Ground Control until termination. Prior to engine run termination, the operator will inform MOC of the aircraft status. If the MOC cannot be reached on the aircraft UHF radio, the Production Superintendent/ expediter must notify them of the aircraft status upon termination. Engine run personnel will not receive credit for the run unless MOC is advised of the start and termination of the run.

14.17.9. **(Added)** EM will:

14.17.9.1. **(Added)** Create job standards in IMDS for all required engine borescope inspections. Inspection due times will be loaded in IMDS for all assigned engines by engine serial number and will be tracked by engine flight hours (CAT 77) in IMDS.

14.17.9.2. **(Added)** Document findings and update new due times for all inspections.

14.17.9.3. **(Added)** Validate IMDS suspense transactions for all borescope inspections.

14.17.9.4. **(Added)** Ensure inspection findings from the JEIM worksheets are entered in the engine automated history record in CEMS.

14.17.9.5. **(Added)** Ensure borescope worksheets are filed in the specific engine record file.

14.17.10. **(Added)** PS&D will:

14.17.10.1. **(Added)** Notify EM of any IMDS screen 700 changes to aircraft flight-hours so installed engine flight times can also be adjusted.

14.17.10.2. **(Added)** Coordinate and establish procedures with Engine management Element (EME) spell to ensure proper documentation of engine inspections accomplished at deployed locations.

14.17.11. **(Added)** AMU Production Superintendents will:

14.17.11.1. **(Added)** Ensure all required engine inspections are completed and documented properly for installed engines.

14.17.11.2. **(Added)** Determine when scheduled borescope inspections will be completed based on accumulated engine flight-hours and the aircraft flying schedule.

14.17.12. **(Added)** AMU borescope operators will:

14.17.12.1. **(Added)** Document borescope findings in the corrective action field of IMDS screen #929.

14.17.12.2. **(Added)** Put an "A" in the records action field at the bottom of screen #929.

14.17.12.3. **(Added)** Coordinate with PS&D and 52 MOS EME to ensure engine inspections completed at deployed locations are properly documented in IMDS.

14.19.2.3.1. **(Added)** Dash-21 equipment and covers will be marked with aircraft tail number.

14.20.1.1. **(Added)** Only a technician authorized by the 52 MXG/CC IAW Chapter 14, Table 14.1 of this instruction may clear Repeat/Recur discrepancies.

14.20.2.1.1. **(Added)** Only a technician authorized by the 52 MXG/CC IAW Chapter 14, Table 14.1 of this instruction may clear CND discrepancies.

Table 14.3. Mandatory Special Certification. Roster (SCR) and Prerequisites.

ITEM	Mandatory SCR Item Titles	Prerequisites
46	Authorized to sign off Repeat/Recur by Primary Air Force Specialty Code (PAFSC) and MDS	SSgt or higher and minimum 7 skill level
47	Authorized to sign off CND by PAFSC and MDS	SSgt or higher and minimum 7 skill level

14.20.2.1.2. **(Added)** Off-equipment maintenance.

14.20.2.1.3. **(Added)** When a component or Line Replaceable Unit (LRU) associated with an aircraft CND bench checks good, the back shop production inspector will evaluate component history and maintenance actions to determine if further testing is required. Immediately notify the respective AMU that the component was a CND.

14.20.2.1.4. **(Added)** If the component or LRU does not meet bad actor criteria, sign the inspector's block of DD Form 1574, and return the unit to supply.

14.20.2.1.5. **(Added)** If the component or LRU is covered by the bad actor program and meets the criteria, the back shop production inspector will ensure it is returned to depot with a deficiency report.

14.20.3. **(Added)** Master Forms Binder. The AMU master forms binder will be taken to QA for review annually. A USAFE Form 241, *Inspection Document*, or equivalent, will be placed after the master cover AFTO Form 781 binder and before the AFTO Form 781F, *Aerospace Vehicle Flight Report and Maintenance Document* to annotate these reviews. This review will be a non-rated special inspection.

14.21.3.3. Any required maintenance or inspection, when applicable, for One Time Inspection or TCTO actions, will be scheduled by PS&D and will be the responsibility of the 81 AMU supervision.

14.23.8. Hot Pit Taxi/Parking Operations.

14.23.8.1. **(Added)** A-10, E-4B and F-16 aircraft are certified to perform hot pits at Spangdahlem AB.

14.23.8.2. **(Added)** Hot Pit locations/Restrictions.

14.23.8.2.1. **(Added)** Hot pitting is authorized at Lower Pits (RAMP 3), Middle Pits (Adjacent to PAS 51), Upper Pits (Entrance to Taxiway Echo), and RAMP 5 (Air Mobility Command (AMC)).

14.23.8.2.2. **(Added)** Type IV hydrant systems are located on Ramp 3, adjacent to hardstand 51, and at the entrance to Taxiway E.

14.23.8.2.3. **(Added)** Aqueous Film-Forming Foam fire suppression systems are located on Ramp 3, adjacent to hardstand 51, and at the entrance to Taxiway E.

14.23.8.3. **(Added)** Lower Hot Pits (Ramp 3 Area).

14.23.8.3.1. **(Added)** A-10s may conduct single and dual hot pitting.

14.23.8.4. **(Added)** Middle Hot Pits (Adjacent to hardstand 51):

14.23.8.4.1. **(Added)** F-16s may conduct single and dual hot pitting.

14.23.8.5. **(Added)** Upper Hot Pits (Taxiway E Area):

14.23.8.5.1. **(Added)** F-16s may conduct single and dual hot pitting only.

14.23.8.6. **(Added)** RAMP 5 (AMC).

14.23.8.6.1. **(Added)** E-4B aircraft are authorized to hot pit on spot #1 National Airborne Operations Center ((NAOC)) Primary) and spot #2 (NAOC Alternate).

14.23.8.6.1.1. **(Added)** Following restriction applies: While the aircraft is parked at either of these locations, no aircraft with explosives cargo may be parked on any adjacent spots.

14.23.8.6.1.2. **(Added)** Refueling procedures will be conducted with R-11 type refueling trucks and an aircraft rescue and fire-fighting vehicle on standby or in the area with a clear view of refueling operation.

14.23.8.6.2. **(Added)** A-10 and F-16 are authorized to hot pit on spot #11 (Primary) and spots 1 through 10 (Alternate).

14.23.8.7. **(Added)** AMU requesting use of RAMP 5 will coordinate with 726 AMC supervision on flying schedule and ramp availability at least 24 hours prior to hot refueling operations.

14.23.12.1. MTF is the training OPR for the hot pit program. MTF is responsible for conducting hot pit Phase I and II training and establishing local training plans. QA can also train but only at the discretion of the QA hot pit OPR.

14.23.16. **(Added)** Hot pit prerequisites:

14.23.16.1. **(Added)** Vehicles or taxiing aircraft will not pass through the hot refueling operation red circle. If any vehicle or aircraft penetrates the hot refueling operation red circle, the “dead-man” switch will be released stopping the refueling operation. No vehicle that is not

affiliated with the hot pit directly besides QA or emergency response vehicles may enter the lower pits (Ramp 3 area) during hot refuel.

14.27.5.5. **(Added)** 52 FW aircraft may remain unsheltered between the periods of 1 April to 30 September each weekday during normal flying operations specifically between 0001 hours local on Monday until the end of swing shift Friday. The 52 MXG/CC can approve, in writing, periods of unsheltered aircraft prior to or after the allotted dates. All 52 FW aircraft will immediately be sheltered if inclement weather conditions (i.e. severe thunderstorms) are forecasted or are within the local area. Additionally, real world Force Protection security requirements will also require sheltering aircraft as deemed necessary to adhere to the condition.

14.27.5.6. **(Added)** All aircraft must be illuminated during the hours of darkness for the entire unsheltered period. Operational illumination required: a minimum of (1) operating eyebrow light (per each side) equaling a minimum of two operating lights for each PAS hardstand.

14.27.5.7. **(Added)** During hours of darkness, vehicles do not require flashers when parked on a PAS hardstand when the following conditions are met: a minimum of (1) operating eyebrow light (per each side) equaling a minimum of two operating lights for each PAS hardstand.

14.28.1. Each AMU will appoint in writing, a primary and alternate program monitor.

14.28.1.3.1.1. Units will schedule JST 480 AMU – 52014 , 81 AMU – 81784 in IMDS and ensure documentation.

14.28.1.4. **(Added)** 100 percent of possessed aircraft will be checked via RADAR Threat Warning System, Confidence Test every 180 days utilizing Test Set AN/USM-670 Joint Service Electronic Combat System Tester. This requirement may be fulfilled through completed Insertion Loss Measurements utilizing AN/USM-638 Test Set. Testing data and results for every aircraft will be entered in IMDS-Central Database.

14.30.5. **(Added)** If a component removal/installation is required and it necessitates an operational check, the pilot may perform this function as long as all checks are completed in accordance with applicable job guides and signed off by the specialist working the system.

14.30.6. **(Added)** Prior to component replacement the component will be isolated from hydraulic/electrical power (as with circuit breakers pulled and hydraulic pressure removed) to ensure safety of personnel/equipment.

14.30.7. **(Added)** Perform CTK and TO inventory prior to exceptional release.

14.32.1.2. **(Added)** The 52 MXG will conduct/complete all self-inspection requirements bi-annually.

14.37.1. Each AMU will appoint, in writing, a primary and alternate program monitor.

14.37.1.1. The monitor will be responsible to coordinate/schedule Identification Friend or Foe check..

14.37.1.5. **(Added)** The 480 AMU monitors will schedule JST 52003 in IMDS and ensure documentation.

14.38.5.8. **(Added)** Ensure Magnetic Chip Detectors (MCD) are submitted to NDI lab within 60 minutes for engines under surveillance.

14.38.5.9. **(Added)** When deployed to locations without Scanning Electron Microscope/Energy Dispersive X-Ray (SEM/EDX) capability perform visual inspection in accordance with TO 1F-16CJ-2-70FI-00-1, *Fault Isolation Power Plant Model F110-GE-129 USAF Series F-16C and F-16D Aircraft* and determine results.

14.38.7.1. Track, and notify appropriate unit of MCD and OAP results via the MOC.

14.38.7.1.1. **(Added)** Immediately initiate the required check sheet, notify Propulsion Flight Chief, 52 AMXS, 52 EMS, and 52 CMS Production Superintendents and EM of debris classifications that are discovered out of limits as advised by the NDI lab.

14.38.7.1.2. **(Added)** Initiate required check sheet for SEM/EDX downtime.

14.38.8. The NDI Section Chief or representative will be the point of contact/monitor for SEM/EDX and Magnetic Chip Detector Debris Program (MCDDP) related matters for F110 engines.

14.38.8.9. **(Added)** Notify MOC to initiate the appropriate check sheet during SEM/EDX down time.

14.38.9.1.1. **(Added)** If needed, contact 52 EMS production supervision to call NDI in for chip replacement.

14.38.9.3.1. **(Added)** All installed engines under special surveillance will be sampled immediately after engine shutdown. Samples will be delivered to the OAP laboratory within 1 hour after request or engine shut down. The OAP laboratory will notify the MOC with the results within 30 minutes after receipt of sample. Aircraft under special surveillance will not be released for flight until the previous sample results are known and the appropriate AFTO Form 781A entry is cleared.

14.38.9.5. **(Added)** All newly installed engines will have OAP/MCD samples taken after first engine run following installation and if results are normal engine will be placed on code A.

14.38.9.6. **(Added)** A minimum of 3 engine run samples will be taken for uninstalled F110 engines at test cell following in-shop maintenance to establish a new OAP baseline.

14.38.9.7. **(Added)** F110 engines will be placed on code "C" status for 3 flights when the following conditions apply: Maintenance of major rotating oil wetted components or when at least ½ the oil capacity is replaced or replenished.

14.38.9.8. **(Added)** Uninstalled F110 engine MCDs will be sent to NDI for analysis following all operational checks.

14.38.12. **(Added)** EM will:

14.38.12.1. **(Added)** Ensure NDI lab is notified of all engine changes; provide aircraft tail number, removed and installed engine serial numbers.

14.38.12.2. **(Added)** Advise NDI lab of all engines being transferred and ensure the SEM/EDX and OAP computer-generated product accompanies engine historical records prior to shipment.

14.38.12.3. **(Added)** Enter any level 2 or 3 results into CEMS.

14.38.13. **(Added)** All MCDDP monitors (primary and alternates) will:

14.38.13.1. **(Added)** Ensure applicable squadron personnel are trained on procedures on how to submit MCDs to the NDI lab. All newly assigned MCDDP monitors will attend a briefing by NDI. This briefing will cover the duties and responsibilities of MCDDP monitors.

14.38.13.2. **(Added)** Ensure all MCD debris analysis request forms are complete and accurate to include: squadron, rank/name, aircraft serial number, engine serial number, total engine hours, and date/time.

14.38.13.3. **(Added)** Ensure all MCD debris analysis documentation errors are corrected ASAP.

14.38.14. **(Added)** Oil Carts.

14.38.14.1. **(Added)** Oil servicing carts will be sampled weekly and when serviced and delivered to the OAP laboratory prior to use on the first duty day of the week. Starting first work shift of the new duty week the oil cart will not be used for servicing until OAP results are known/good.

14.38.14.2. **(Added)** Documentation of the 7-Day Joint Oil Analysis Program sample is required and will be annotated on part III and part V of the AFTO Form 244, *Industrial Support Equipment Record*. A red dash will be entered on part V, "7-Day JOAP sample accomplished, awaiting NDI results." This is to provide documentation that an unknown condition exists. Once NDI results are verified and confirm a know condition of the JOAP sample then part V can be signed off, "NDI JOAP results code "A" Alpha."

14.38.14.3. **(Added)** All oil carts exceeding criteria will be placed on code "P" (do not operate; do not change oil; submit re-sample ASAP. A RED "X" will be immediately placed in the AFTO form 244 and the cart will be isolated to prohibit use and then a new sample will be submitted within 1 hour of notification. If re-sample readings are still excessive, the oil cart will be placed on code "J" for a complete drain and flush by AGE Flight. Following the drain and flush another as mule will be required.

14.44. **(Added) Travel Pod (TP) Maintenance.**

14.44.1. **(Added)** Locally assigned five-digit identification numbers will be assigned as follows: 480 AMU - R16-XX, 81AMU - GTP - XX. Last two positions are sequential numbers, i.e. 01, 02, etc. Identification numbers will be stenciled on the TP between the suspension lug mount holes.

14.44.2. **(Added)** Assignment of TP managers/assistants will be the responsibility of the Aircraft Section Chief.

14.44.3. **(Added)** A pre-use serviceability inspection will be performed prior to the TP being installed on an aircraft.

14.44.4. **(Added)** TP not in use will be kept free of foreign objects and in serviceable condition, unless otherwise documented on the AFTO Form 244.

14.44.5. **(Added)** Each AMU TP manager will be responsible for the inspection, maintenance, control and accountability of all assigned TPs assigned to their respective units.

14.44.6. **(Added)** AMUs will route travel pods through 52 EMS Fabrication Flight as required. 52 EMS or equipment managers will be the Not Repairable This Station (NRTS) authority for all 52 AMXS TPs. NRTS TPs will be disposed of by the owning organization.

14.45. **(Added)** Aircraft Recovery section will:

14.45.1. **(Added)** Execute all "White Area" maintenance.

14.45.2. **(Added)** "White Area" Maintenance Actions.

14.45.2.1. **(Added)** The 52 EMS Maintenance Operations Officer/Superintendent will identify selected maintenance personnel as "White Area" maintenance team members.

14.45.2.2. **(Added)** The teams will be of a sufficient number to ensure "White Area" closure is a continuous operation from start to finish. All shift changes will take place at the aircraft.

14.45.2.3. **(Added)** Prior to sealing the "White Area", a 7-skill level will inspect the maintenance and sign off the Red X. R&R technicians will annotate in the AFTO Form 781A and notify QA that an "A-10 White Area Closure Key Task List Inspection" is due.

14.45.2.4. **(Added)** Additional personnel are authorized in the "White Area" only when receiving training or performing maintenance under the supervision of a "White Area" technician.

14.46. **(Added) Aircraft Phase Inspection.**

14.46.1. **(Added)** 52 EMS Responsibilities and Procedures.

14.46.1.1. **(Added)** No more than one phase inspection aircraft will be scheduled in each inspection dock at any time unless contingency or pre-deployment circumstances dictate otherwise. Exceptions will be approved through 52 EMS/ 52 AMXS squadron supervision and the applicable AMUs will provide additional qualified manning to assist with workload.

14.46.1.2. **(Added)** Assist applicable AMUs with heavy maintenance/inspection tasks if phase dock is vacant. Maintenance assists will be coordinated in advance and approved through the 52 EMS maintenance flight supervision.

14.46.1.3. **(Added)** Phase dock chief will ensure that all work cards are signed off and all scheduled maintenance on the AF 2410 is complete. In the event of open discrepancies/jobs identified during phase, dock chief will ensure job control numbers are valid, scheduled and appropriately deferred.

14.46.2. **(Added)** Aircraft Location/Configuration.

14.46.2.1. **(Added)** Owning AMU will:

14.46.2.1.1. **(Added)** Deliver F-16 aircraft to fuel barn no later than 1800 hrs on the last duty day prior to phase input with no input conditions that will impede the phase flow or were not agreed upon on the AF 2410. A-10 aircraft will be delivered to phase in accordance with block 8 of the AF 2410. Both aircraft will be delivered airworthy except for those pilot-reported discrepancies not previously identified in the pre-dock meeting and any conditions resulting from pre-inspection checks or phase work cards that are unable to be repaired prior to phase.

14.46.2.1.1.1. **(Added)** Provide a PAS to accommodate uninterrupted phase operations in the event that hangar 2 is being utilized for wing functions, bazaars, or contract maintenance. Applicable AMU Production Superintendent will provide oversight for PAS availability.

14.46.2.1.2. **(Added)** The following requirements will be met prior to aircraft being placed in Phase:

14.46.2.1.2.1. **(Added)** A-10 Aircraft:

14.46.2.1.2.1.1. **(Added)** Fuel load: 6,000 lbs or less.

14.46.2.1.2.1.2. **(Added)** Flaps lowered.

14.46.2.1.2.1.3. **(Added)** Speed brakes opened.

14.46.2.1.2.1.4. **(Added)** Universal Aerial Refueling Receptacle Slipway Installation Operational Checkout and Fuels System Functional Checkout.

14.46.2.1.2.1.5. **(Added)** LAU-105S210 removed.

14.46.2.1.2.1.6. **(Added)** AN/ALQ 131 Pod downloaded.

14.46.2.1.2.2. **(Added)** F-16 Aircraft:

14.46.2.1.2.2.1. **(Added)** Fuel load: as required.

14.46.2.1.2.2.2. **(Added)** All external fuel tanks removed.

14.46.2.1.2.2.3. **(Added)** All under-wing panels installed.

14.46.2.1.2.2.4. **(Added)** All fuel leaks marked, documented in aircraft forms and IMDS.

14.46.2.1.2.2.5. **(Added)** Wing weapons and centerline pylons (MAU-12s) downloaded or removed.

14.46.2.1.2.2.6. **(Added)** Missile rails removed from stations 1 and 9.

14.46.2.1.2.2.7. **(Added)** Forward fairings removed from stations 2 and 8 (if stations 2 and 8 remain on aircraft).

14.46.3. **(Added)** 52 CMS Personnel will:

14.46.3.1. **(Added)** Serve as the primary support for phase maintenance/inspection of aircraft Electrical/Environmental systems.

14.46.4. **(Added)** Phase QA QVI:

14.46.4.1. **(Added)** F-16 phase QVI will be accomplished in four rated areas. In each area, the AFTO 781 series forms will be signed off prior to calling 52 MXG QA for a final inspection. Area inspections are defined as follows:

14.46.4.1.1. **(Added)** Area 1 : Cockpit.

14.46.4.1.2. **(Added)** Area 2 : Forward and fuselage.

14.46.4.1.3. **(Added)** Area 3 : Landing gear.

14.46.4.1.4. **(Added)** Area 4 : Top and wings.

14.46.4.1.5. **(Added)** 52 MXG QA will perform SI forms review after all work areas are completed.

14.46.4.2. **(Added)** A-10 phase QVI will be accomplished in four rated areas. In each area, the AFTO 781 series forms will be signed off prior to calling 52 MXG QA for a final inspection. Area inspections are defined as follows:

14.46.4.2.1. **(Added)** Area 1 : Forward fuselage from nose to leading edge of wing, top and bottom to include cockpit, gun system as applicable and nose landing gear.

14.46.4.2.2. **(Added)** Area 2 : Center fuselage from leading edge to trailing edge of wing, top and bottom of wing to include all weapons pylons and main landing gear.

14.46.4.2.3. **(Added)** Area 3 : Aft fuselage from trailing edge of wing to tail, top and bottom to include engine outer nacelles, vertical and horizontal stabilizers. Environmental Control System installed. Engine pylon area on top of the nacelle, engine inner cowlings, shrouds and APU compartments.

14.46.4.2.4. **(Added)** Area 4 : Left and right engines and APU.

14.46.4.3. **(Added)** 52 MXG QA will perform SI forms review after all work areas are completed.

14.46.4.3.1. **(Added)** 52 MXG QA may provide training on new TCTOs when applicable. TCTO may be proofed in phase if documented on AF 2410 or coordinated with the 52 EMS Production Superintendent.

14.47. **(Added)** QA is the OPR for the aircraft hangar entry checklist. Coordinate any changes to the aircraft hangar entry checklist with 52 MXG QA.

14.47.1. **(Added)** Procedures:

14.47.1.1. All aircraft will be positioned as follows:

14.47.1.2. **(Added)** All aircraft placed in hangar 5 (fuel barn), building 99 (corrosion control), and building 221 (hush house 3) will have the canopy closed at all times unless personnel are actively working in the cockpit. If canopy cannot be lowered due to current maintenance actions the cockpit area will be covered with a canvas sheet or thick plastic sheet (garbage bags are not acceptable) and secured to prevent falling or blowing off. Note***:*** When pushing F-16 aircraft into or removing aircraft from any hangar (Hangars 1, 2, 3, 4, 5 and building 99) the tow bar wheels must be lowered (unless using the upper pintle hook) while crossing door tracks to prevent damage to the tow bar, door rails or aircraft nose strut**.**

16.1.12. **(Added)** Location of Operation.

16.1.12.1. **(Added)** Ejection seat and canopy removal and installation operations will be conducted inside a PAS, suitable maintenance hangar or shelter, to include hangar 5 if approved by fuels section supervision. The 52 MXG/CC or deputy will approve any deviation to this procedure.

16.1.12.2. **(Added)** Ejection seat raise and/or tilt operations may be conducted outside except during inclement weather (seat will interfere with closing the canopy). Otherwise, aircraft will be inside approved PAS. **Note**: Egress personnel must be on duty if a seat is raised to the maintenance position at an outside location. When personnel are going off duty the seat will be

lowered to allow the canopy to be closed. Seats will not be left in the raised position overnight unless the aircraft is inside an approved shelter.

16.1.12.2.1. **(Added)** If the aircraft needs to be put on jacks or towed the seat must first be lowered.

16.1.13. **(Added)** Maintenance Procedures.

16.1.13.1. **(Added)** On F-16D aircraft, the centerline fuel tank as well as one wing tank will be removed to facilitate crane positioning during seat/canopy removal and installation.

16.1.13.2. **(Added)** Windscreens on A-10 aircraft will be lowered and installed prior to egress conducting any ejection seat removal/installation actions.

16.3.2.1. **(Added)** Egress personnel may ride in the cargo compartment of an explosive-laden vehicle. No more than three personnel and two seat assemblies may be transported together in the cargo compartment. Personnel must be seated and seat assemblies will be safed and secured as prescribed in AFMAN 91-201_USAFESUP. Protective containers will be used to transport detonators, initiators, squibs and other such electrically or mechanically actuated devices to prevent item-to-item contact. The container must be marked properly, identifying its contents.

16.3.3.1. **(Added)** AMUs will maintain the serviceability of flight status pins and safety devices installed on aircraft egress systems.

16.3.4. **(Added)** The following actions are prohibited when egress personnel are performing aircraft maintenance:

16.3.4.1. **(Added)** Performing other maintenance on aircraft without prior approval from the egress team leader.

16.3.4.2. **(Added)** Disrupting work in progress, except in emergency situations and only after reaching a safe stopping point.

16.3.4.3. **(Added)** Aircraft will not be towed when the canopy actuator is removed or disconnected to prevent stress on canopy hinge points.

16.10.2.1. **(Added)** The egress section will provide an A-10 and F-16 certified egress person to teach cockpit familiarization training for the Training Detachment 17 (Det 17) if the Det 17 instructor is TDY, on leave and/or performing instructor duty.

16.10.2.2. **(Added)** Completed training will be documented on the automated training product. The MTF will be responsible for scheduling training.

16.12.5.4. **(Added)** The egress section will perform a 100% Cartridge-Actuated Device/Pressure Actuated Device (CAD/PAD) verification of any serially-controlled item being cannibalized prior to installation.

16.12.6. **(Added)** .Perform a CAD/PAD inventory and verification of readily accessible egress items to ensure IMDS approved configuration items match the actual configuration during all 36 month seat and canopy inspections.

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Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFOSHSTD 91-100, *Aircraft Flight Line - Ground Operations and Activities,* 1 May 1998

AFI 21-101_COMBATAIRFORCESUP, *Aircraft and Equipment Maintenance Management,* 28 Dec 2010

AFMAN 23-110, *USAF Supply Manual* 1 Apr 2009

AFMAN 33-363, *Management of Records,* 1 Mar 2008

AFI 21-103, *Equipment Inventory, Status and Utilization Reporting* 14 December 2005

AFI 36-2903, *Dress and Personal Appearance of Air Force Personnel,* 18 Jul 2011

AFMAN 91-201, *Explosive Safety Standards,* 12 Jan 2011

TO 00-20-1, Aerospace Equipment Maintenance Inspection, Documentation, policies, and Procedures, 1 Sept 2010

TO 16W41-2-1, *Operations and Maintenance Instructions with Illustrated Parts Breakdown,* 15 Jan 2009

TO 1A-10A-33-1-2-WA-1, *Non-Nuclear Munitions Loading,* 1 Jun 2010

TO 1A-10A-2-94JG-6, *Armament 30mm Gun System,* 22 Sep 2010

TO 1A-10C-6-WA-1, *Scheduled Inspection and Maintenance Requirements USAF Series A-10C Aircraft SERNO 78-0582 and Subsequent,* 15 Dec 2011

TO 1F-16C-33-1-2CL-100-WA-1, *Non-Nuclear Munitions Loading Procedures and Delayed Flight or Alert Immediately Prior to Launch and Safing,* 15 Dec 2009

TO 1F-16CJ-6-11, *Scheduled Inspection and Maintenance Requirements USAF Series F-16C and F-16D Aircraft,* 1 Jul 2011

TO 1F-16CJ-2-70FI-00-1, *Fault Isolation Power Plant Model F110-GE-129 USAF Series F-16C and F-16D Aircraft,* 1 Sep 2011

LCL-52MXG-32, *Aircraft Preparation and Engine Run Operation in the Hush House,* 28 Jan 2009

Adopted Forms

LCL-52MXG-201-WA-1, *52 MXG Emergency Action Checklists,* 3 Aug 2010

AF Form 483, *Certificate of Competency,* 1 Feb 1985

AF Form 2047, *Explosive Facility License,* 4 Jul 1998

AF Form 2414, *Verification Worksheet,* 18 Mar 2005

AF Form 2435, *Load Training and Certification Document,* 1 Apr 1974

AF Form 3215OP_AETC, *C4 Systems Requirements Document*

USAFE Form 241, *Inspection Document,* 9 Jul 2003

Spangdahlem Form 3, *F110-GE-129 First Stage Fan FOD Survey,* 23 Feb 2011

Spangdahlem Form 4, *TF34-GE-100A First Stage Fan FOD Survey*, 21 Feb 2010

AF Form 2408, *Generation Maintenance Plan,* 1 Jun 1972

USAFE Base Form 40, *Dull Sword Worksheet,* 6 Mar 2009

AFTO Form 11, *A-10 Recording Systems Status,* 1 Oct 1979

AFTO Form 278, *A-10 Flight Log,* 22 Dec 2004

DD Form 1574, *Serviceable Tag Material,* 1 Oct 1988

DD Form 2027, *Oil Analysis Record,* 1 Jul 1982

DD Form 2875, *System Authorization Access Request,* Aug 2009

52 MXG Form 146, *Broken, Removed, and Missing Tool Log,* 31 Jun 2010

52 MXG Form 869, *Local Manufacture Request,* 12 Feb 2011

AF Form 2410 *Inspection/TCTO Planning Checklist,* 1 Jun 1972

AF Form 1297, *Temporary Issue Receipt,* 1 Jul 1987

AF Form 2005, *Issue/Turn-In Request,* 26 Aug 2008

AF Form 2409, *Generation Sequence Action Schedule,* 1 Nov 1993

AF 2426, *Training Request and Completion Notification,* 1 Aug 1996

AF Form 601, *Equipment Action Request,* 1 Jun 1991

AF 847, *Recommendation for Change of Publication,* 22 Sep 2009

AFTO Form 350, *Repairable Item Processing,* 14 Apr 2011

AFTO 95, *Significant Historical Data Record,* 17 Jun 2002

AFTO Form 244, *Industrial Support Equipment Record,* 13 Jan 2011

AFTO 349, *Maintenance Data Collection Record,* 29 Mar 2011

AFTO Form 781A, *Maintenance Discrepancy and Work Document*

AFTO Form 781F, *Aerospace Vehicle Flight Report and Maintenance Document,* 15 Sep 2010

CAF Form 140, *Composite Tool Kit (CTK) Inventory and Control Log,* 1 Apr 2007

CAF Form 145, *Lost Tool/Object Report,* 1 Apr 2007

CAF Form 147, *Quality Assurance Impoundment Record,* 21 Jun 2007

DD Form 1348-6, *DoD Single Line Item Requisition System Document,* Feb 1985

Abbreviations and Acronyms

AB—Air Base

ACCI—Air Combat Command Instruction

ADR—Aircraft Document Review

AF—Air Force

AFE—Aircrew Flight Equipment

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFOSHSTD—Air Force Occupational Safety and Health Standard

AFRIMS—Air Force Records Information Management System

AFTO—Air Force Technical Order

AGE—Aerospace Ground Equipment

AGM—Air Surface Attack Guided Missile

AIM—Air Intercept Missile

AMC—Air Mobility Command

AME—Alternate Mission Equipment

AMS—Air Mobility Squadron

AMU—Aircraft Maintenance Unit

AMU SE—AMU Supply Element

AMXS—Aircraft Maintenance Squadron

APG—Airframe, Power plant General

APU—Auxiliary Power Unit

ASC—Allowance Source Code

ASIMIS—Aircraft Structural Integrity Management Information System

ATAP—Air Traffic Act Permit

BDU—Bomb Dummy Unit

BRU—Bomb Rack Unit

CAD/PAD—Cartridge/Propellant Activated Device

CAF—Combat Air Forces

CANN—Cannibalization

CC—Commander

CCG—Computer Control Group

CD—Deputy Commander

CEM—Chief Enlisted Manager

CEMS—Comprehensive Engine Management System

CETADS—Comprehensive Engine Trending and Diagnostics System

CMS—Component Maintenance Squadron

CND—Can Not Duplicate

COB—Close of Business

CSFDR—Crash Survivable Flight Data Recorder

CTK—Composite Took Kit

DBM—Database Manager

DD—Department of Defense

DDR—Detailed Data Record

DEROS—Date Eligible to Return from Over Seas

DIT—Data Integrity Team

DR—Deficiency Report

DRA—Dual Rail Adapters

ECM—Electronic Countermeasures

EM—Engine Management

EME—Engine management Element

EMS—Equipment Maintenance Squadron/ Environmental Management System

EOD—Explosive Ordinance Disposal

EOR—End of Runway

ERV—Emergency Response Vehicle

FCF—Functional Check Flight

FO—Foreign Object

FOD—Foreign Object Damage

FS—Fighter Squadron

FSC—Flight Service Center

FW—Fighter Wing

GEOLOC—Geographical Location

GUI—Graphical User Interface

HAS—Hardened Aircraft Shelter

IA—Impound Authority

IAW—In Accordance With

ID—Identification

IEPU—Improved Electronic Processor Unit

IMDS—Integrated Maintenance Data System

IO—Impound Official

IPL—Immediately Prior to Launch

JCN—Job Control Number

JEIM—Jet Engine Intermediate Maintenance

JFP—Job flow Package

JST—Job Standard

LAN—Local Area Network

LAU—Launcher Armament Unit

LCL—Local Checklist

LM—Local Manufacturer

LOX—Liquid Oxygen

LRU—Line Replaceable Unit

MCD—Magnetic Chip Detectors

MCDDP—Master Chip Detector Debris Program

MMA—Maintenance Management Analysis

MOC—Maintenance Operations Center

MOF—Maintenance Operations Flight

MOS—Maintenance Operations Squadron

MRSP—Mobility Readiness Spare Package

MS/SUPT—Maintenance Operations Officer/ Superintendent

MSAT—Maintenance Scheduling Application Tool

MSEP—Maintenance Standardization & Evaluation Program

MTC—Mission Training Center

MTF—Maintenance Training Flight

MXG—Maintenance Group

MXG/CC—Maintenance Group/Commander

NAOC—National Airborne Operations Center

NCOIC—Non–Commissioned Officer in Charge

NDI—Non-Destructive Inspection

NIE—Normally Installed Equipment

NLT—Not Later Than

NRTS—Not Repairable This Station

OAP—Oil Analysis Program

OCF—Operational Check Flight

OIC—Officer in Charge

OPR—Office of Primary Responsibility

OSC—On Scene Commander

PAFSC—Primary Air Force Specialty Code

PAS—Protective Aircraft Shelter

PCS—Permanent Change of Station

PE—Personnel Evaluation

PS&D—Plans, Scheduling, and Documentation

QA—Quality Assurance

QVI—Quality Verification Inspections

PRA—Planning Requirements

RDS—Records Disposition Schedule

R&R—Repair and Reclamation

RPM—Revolution Per Minute

RWR—Radar Warning Receiver

SEM/EDX—Scanning Electron Microscope/ Energy Dispersion X–Ray

SI—Special Inspection

SRD—Standard Reporting Designator

SUU—Suspended Utility Unit

TAS—Tool Accountability System

TCI—Time Change Item

TCTO—Time Compliance Technical Order

TDY—Temporary Duty

TER—Triple Ejection Rack

TP—Travel Pod

UHF—Ultra High Frequency

USAFE—United States Air Forces in Europe

UTM—Unit Training Manager

W&B—Weight and Balance

WLT—Weapons Load Training

WS—Weapons Standardization

WSS—Weapons Standardization Section

WWM—Wing Weapons Manager